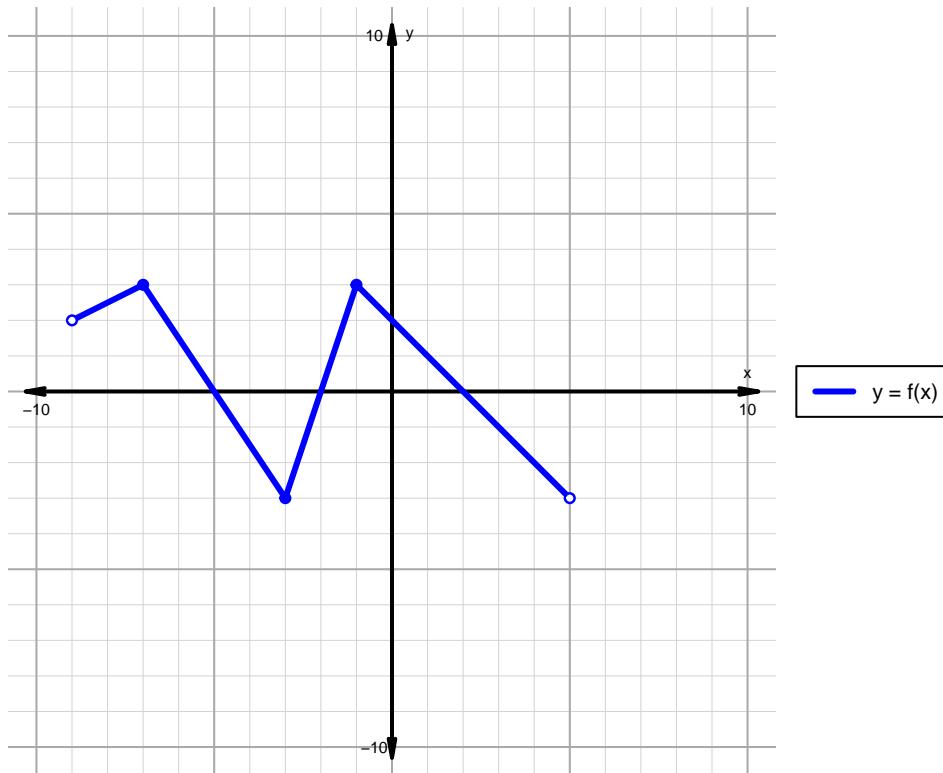


Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Intervals, Transformations, and Slope EXAM (version 100)

1. The function  $f$  is graphed below.



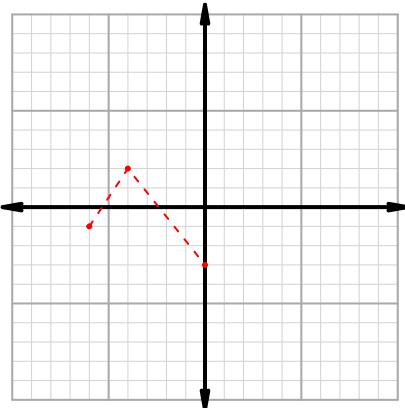
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

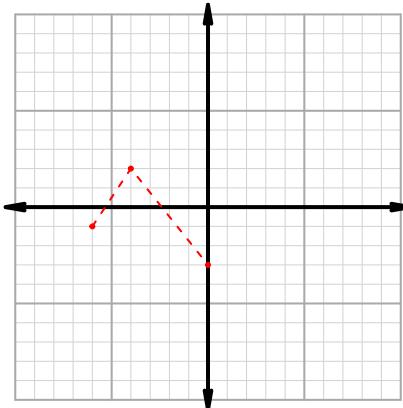
## Intervals, Transformations, and Slope EXAM (version 100)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

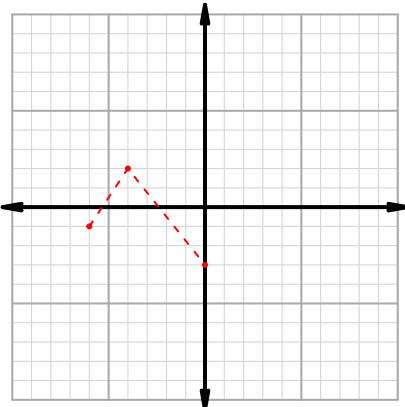
$$y = f(2 \cdot x)$$



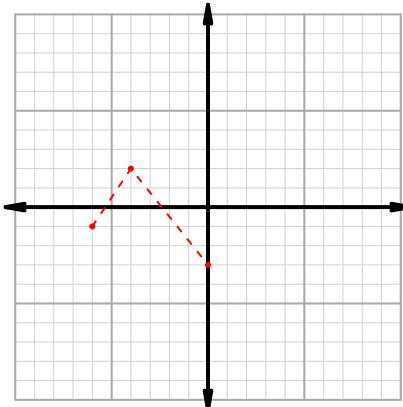
$$y = f(x) + 2$$



$$y = f(x + 2)$$



$$y = 2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 33$  and  $x_2 = 47$ . Express your answer as a reduced fraction.

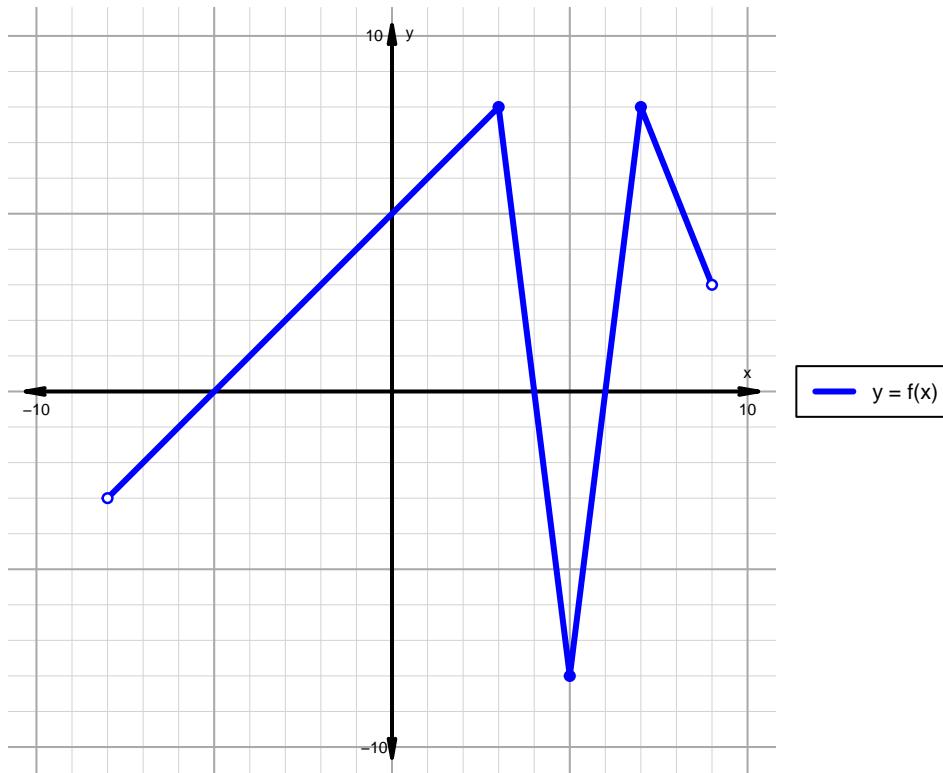
$x$	$g(x)$
33	56
40	33
47	40
56	47

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 101)**

1. The function  $f$  is graphed below.



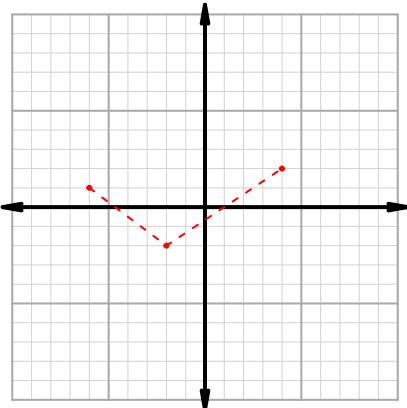
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

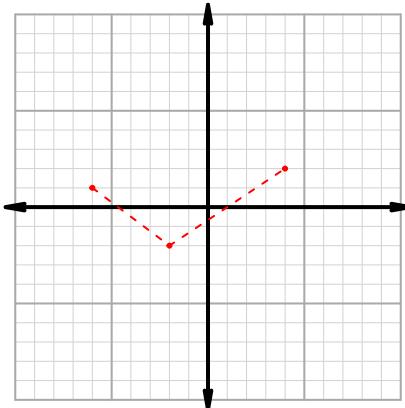
## Intervals, Transformations, and Slope EXAM (version 101)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

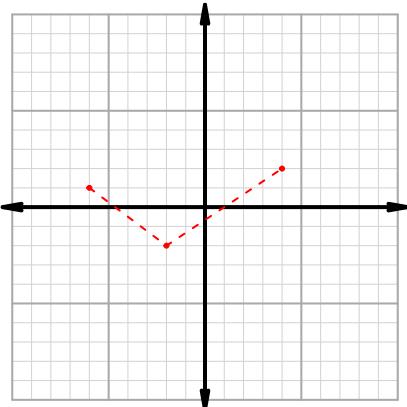
$$y = f(x+2)$$



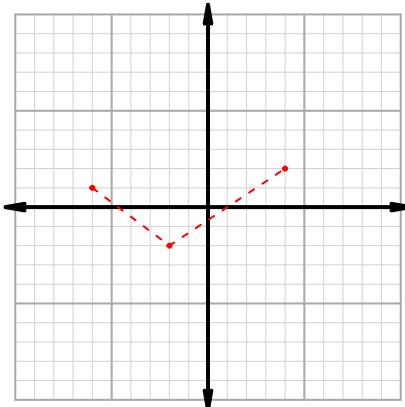
$$y = 2 \cdot f(x)$$



$$y = f(x) + 2$$



$$y = f(-2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 76$  and  $x_2 = 94$ . Express your answer as a reduced fraction.

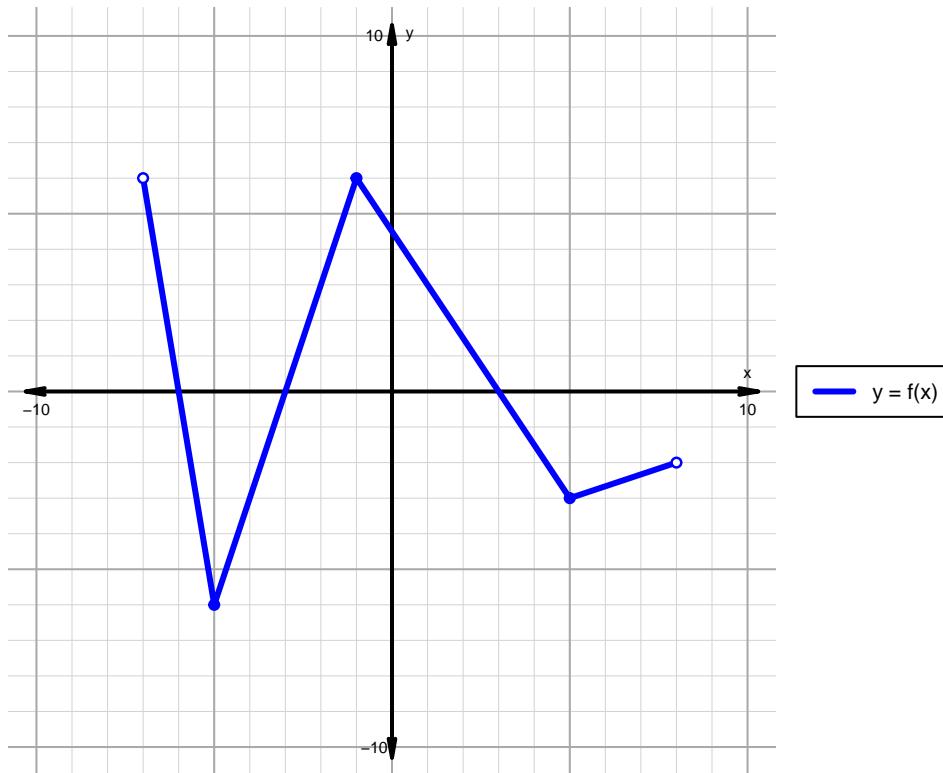
$x$	$g(x)$
16	94
46	76
76	16
94	46

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 102)**

1. The function  $f$  is graphed below.



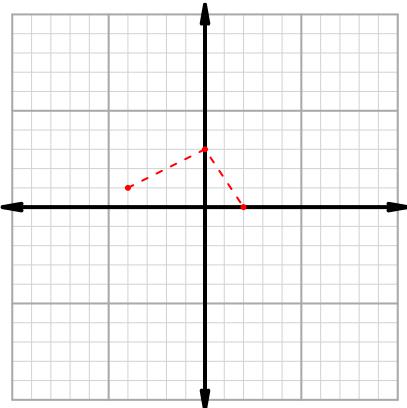
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

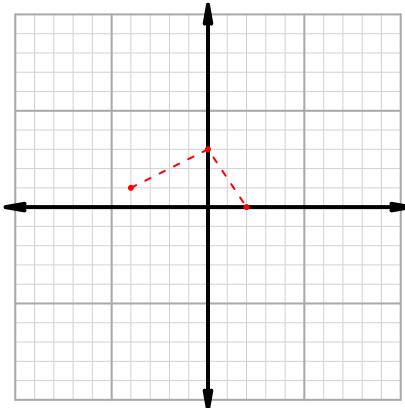
## Intervals, Transformations, and Slope EXAM (version 102)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

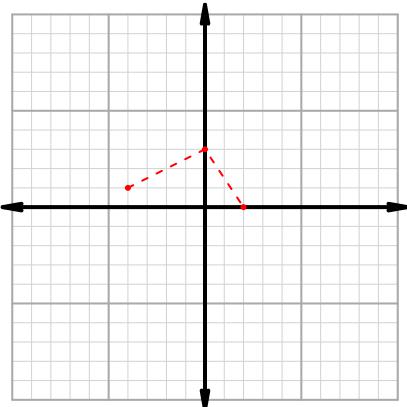
$$y = f(x - 2)$$



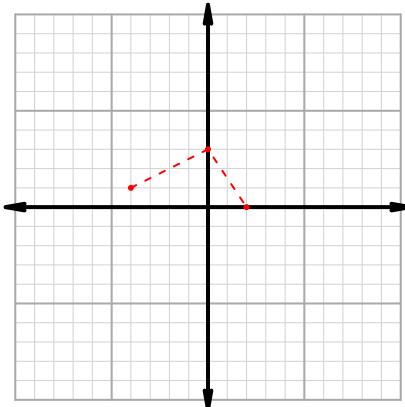
$$y = f(x) - 2$$



$$y = f(2 \cdot x)$$



$$y = 2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 15$  and  $x_2 = 55$ . Express your answer as a reduced fraction.

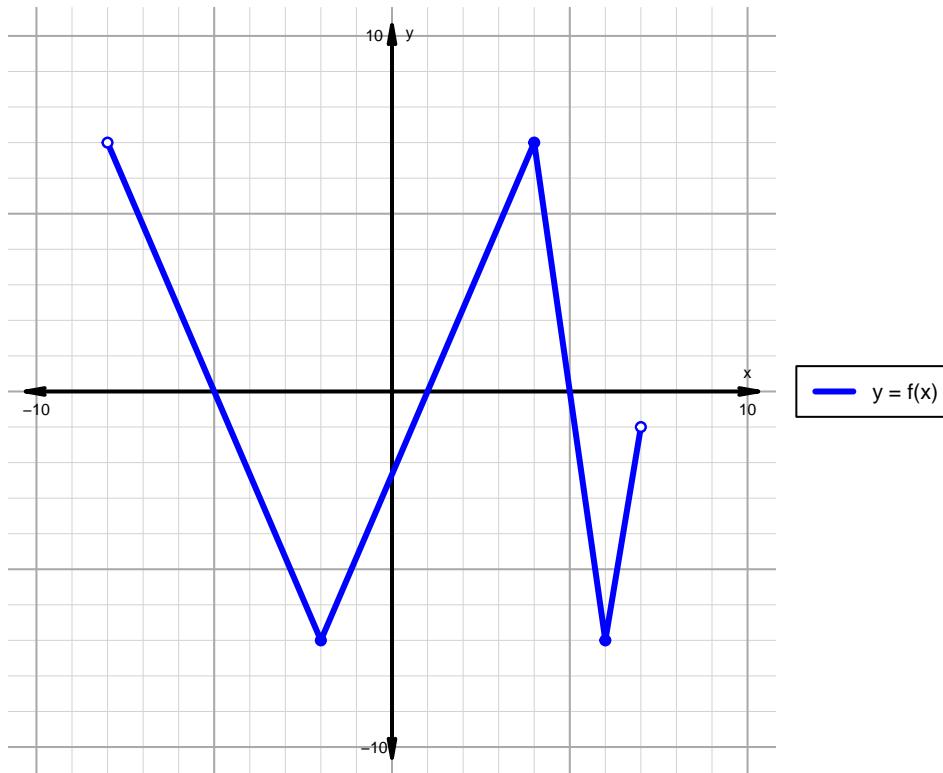
$x$	$g(x)$
15	71
55	96
71	55
96	15

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 103)**

1. The function  $f$  is graphed below.



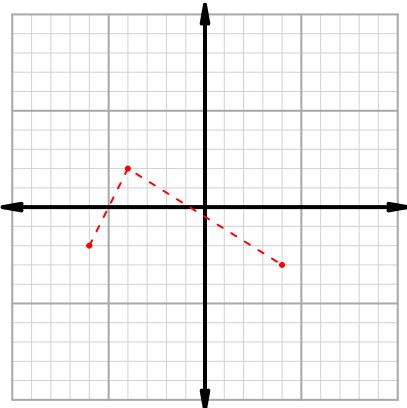
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

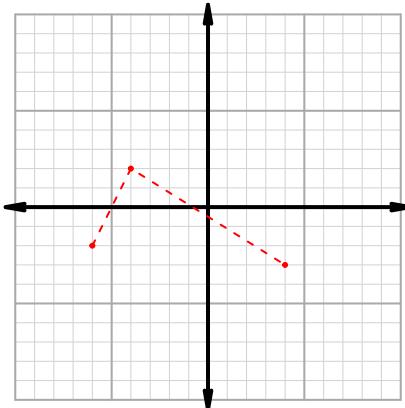
## Intervals, Transformations, and Slope EXAM (version 103)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

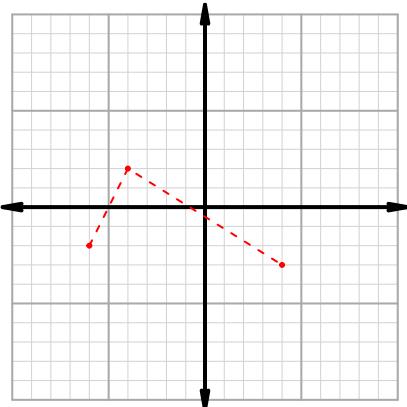
$$y = f(x+2)$$



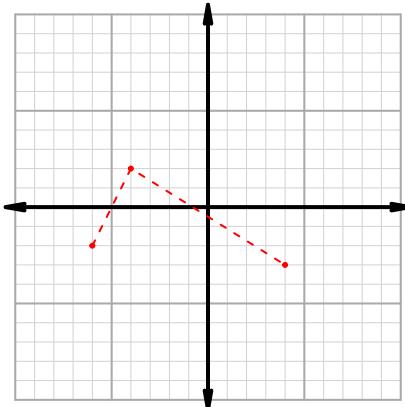
$$y = f(-2 \cdot x)$$



$$y = -2 \cdot f(x)$$



$$y = f(x) + 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 62$  and  $x_2 = 86$ . Express your answer as a reduced fraction.

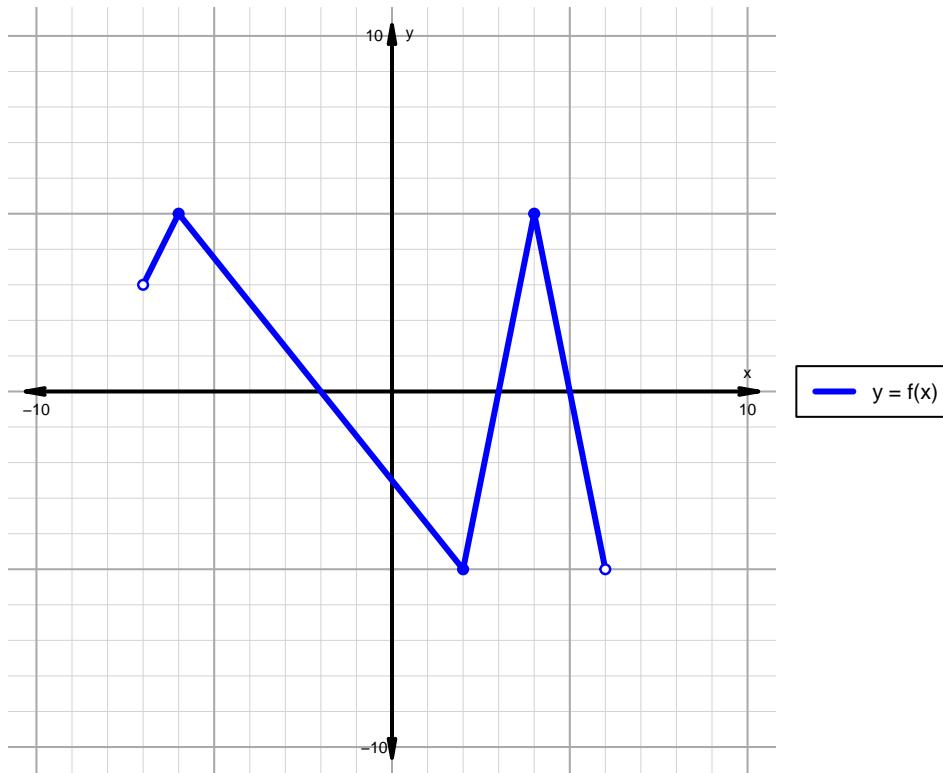
$x$	$g(x)$
19	62
51	86
62	51
86	19

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 104)**

1. The function  $f$  is graphed below.



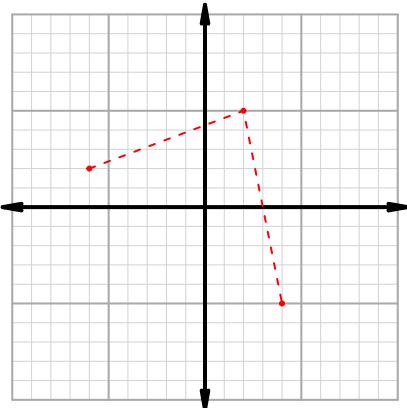
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

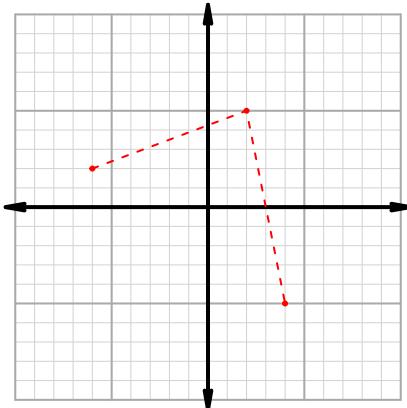
## Intervals, Transformations, and Slope EXAM (version 104)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

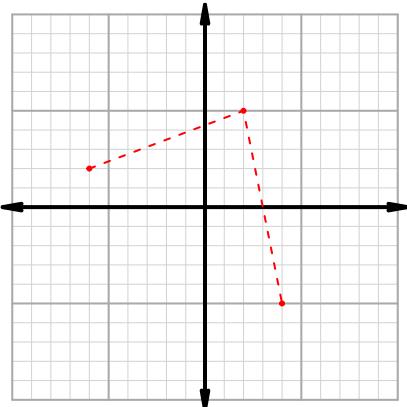
$$y = -2 \cdot f(x)$$



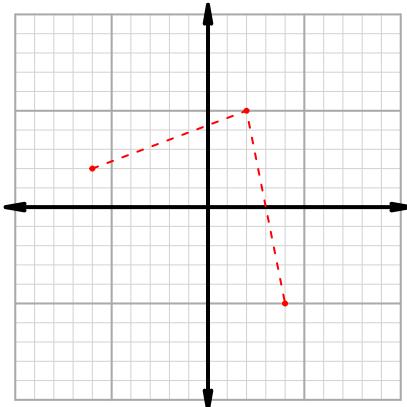
$$y = f(x) + 2$$



$$y = f(x+2)$$



$$y = f(2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 27$  and  $x_2 = 39$ . Express your answer as a reduced fraction.

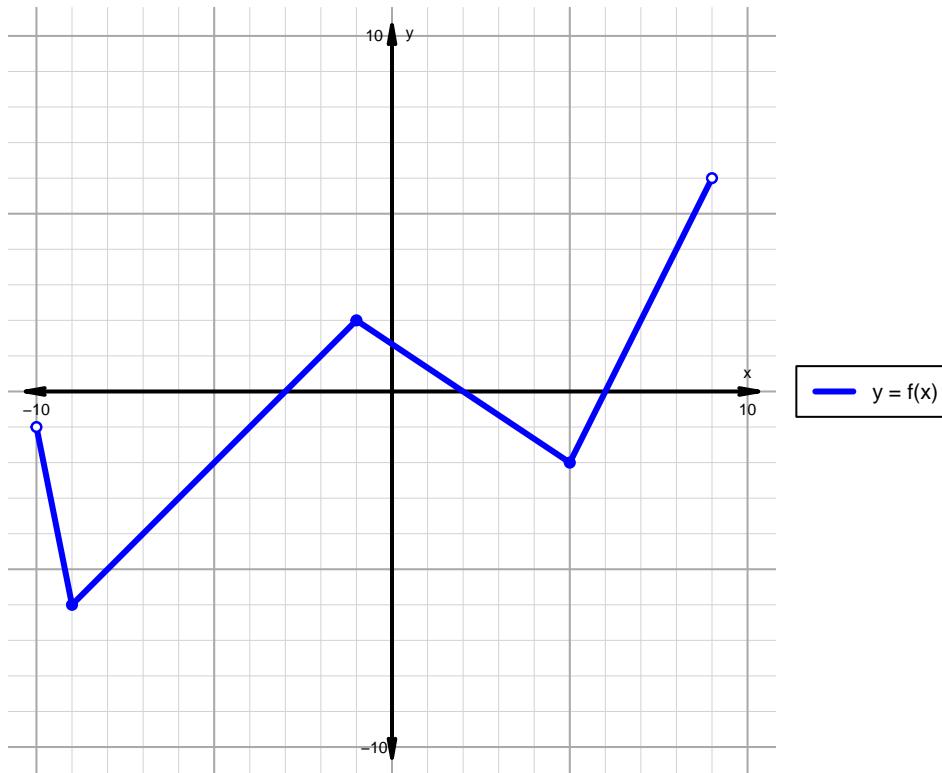
$x$	$g(x)$
3	27
23	39
27	23
39	3

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 105)**

1. The function  $f$  is graphed below.



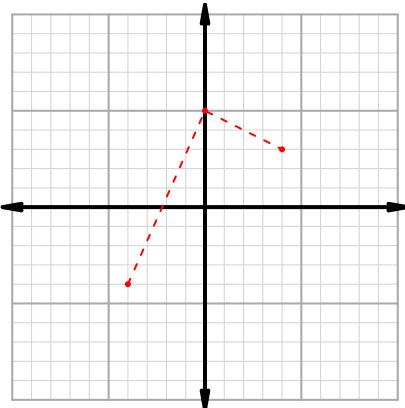
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

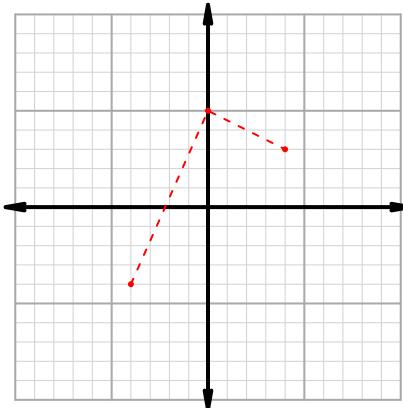
## Intervals, Transformations, and Slope EXAM (version 105)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

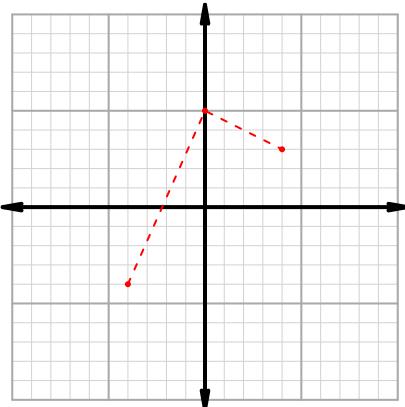
$$y = 2 \cdot f(x)$$



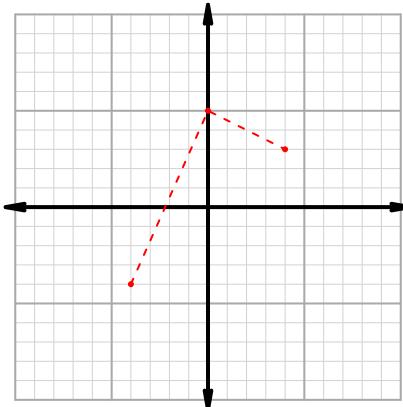
$$y = f(-2 \cdot x)$$



$$y = f(x - 2)$$



$$y = f(x) - 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 17$  and  $x_2 = 73$ . Express your answer as a reduced fraction.

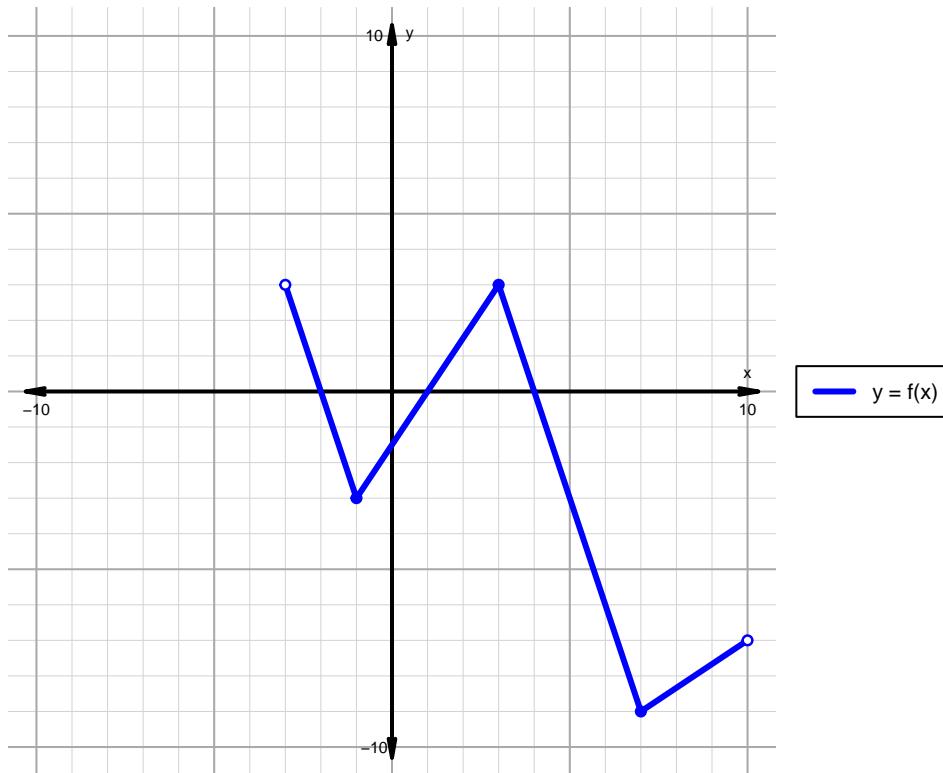
$x$	$g(x)$
17	36
36	73
52	17
73	52

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 106)**

1. The function  $f$  is graphed below.



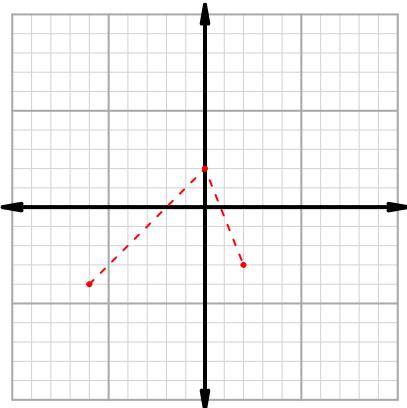
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

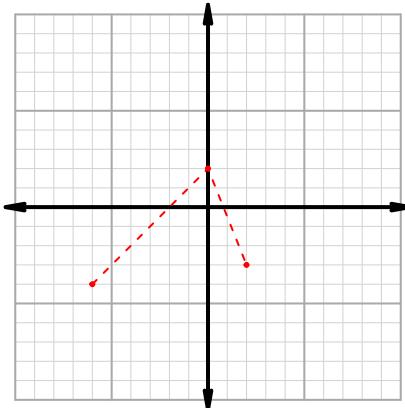
## Intervals, Transformations, and Slope EXAM (version 106)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

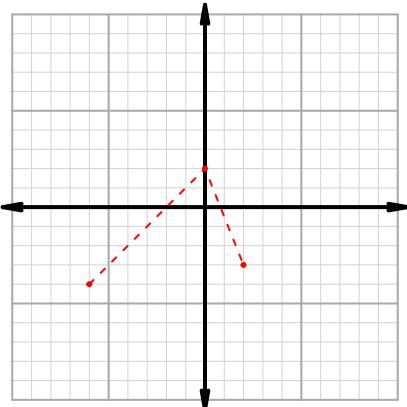
$$y = f(x) - 2$$



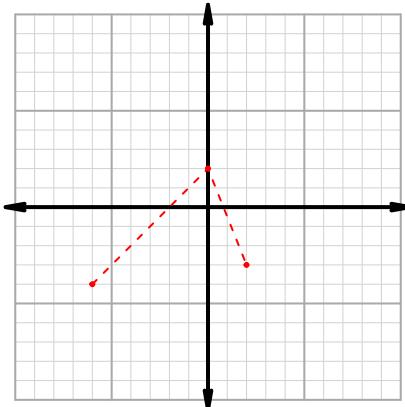
$$y = 2 \cdot f(x)$$



$$y = f(-2 \cdot x)$$



$$y = f(x - 2)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 41$  and  $x_2 = 59$ . Express your answer as a reduced fraction.

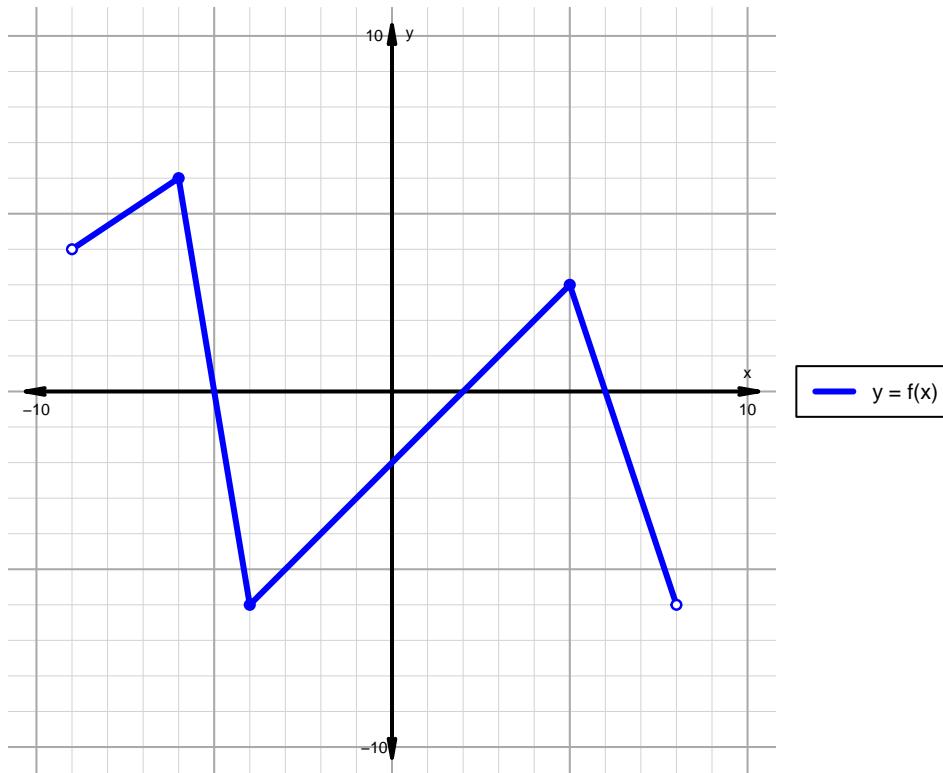
$x$	$g(x)$
12	59
41	12
59	93
93	41

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 107)**

1. The function  $f$  is graphed below.



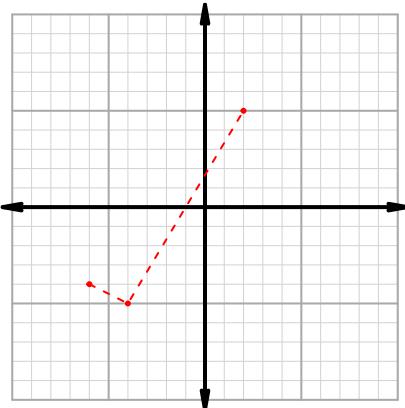
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

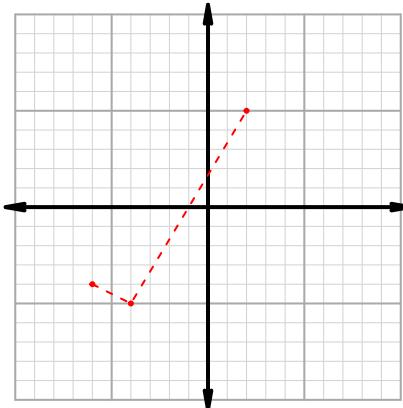
## Intervals, Transformations, and Slope EXAM (version 107)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

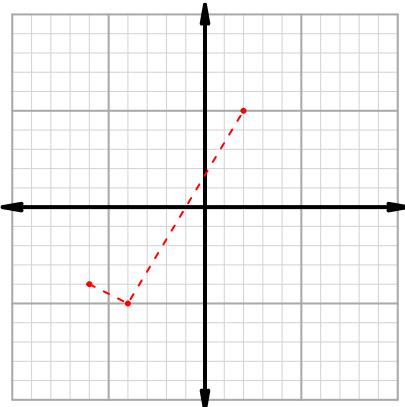
$$y = f(2 \cdot x)$$



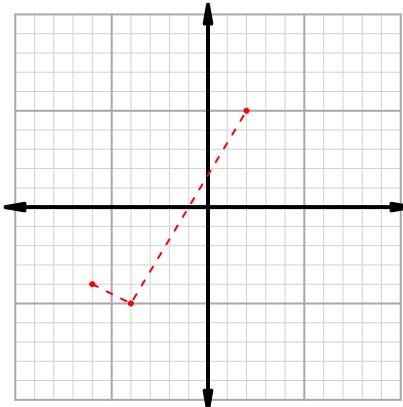
$$y = f(x + 2)$$



$$y = f(x) + 2$$



$$y = -2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 20$  and  $x_2 = 74$ . Express your answer as a reduced fraction.

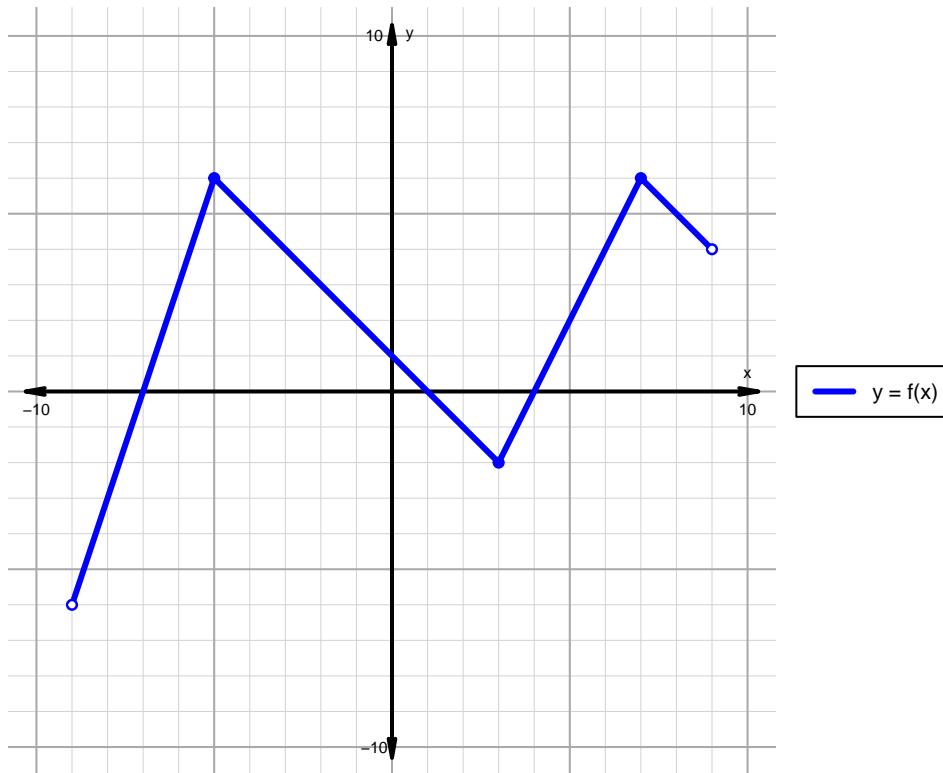
$x$	$g(x)$
20	63
39	20
63	74
74	39

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 108)**

1. The function  $f$  is graphed below.



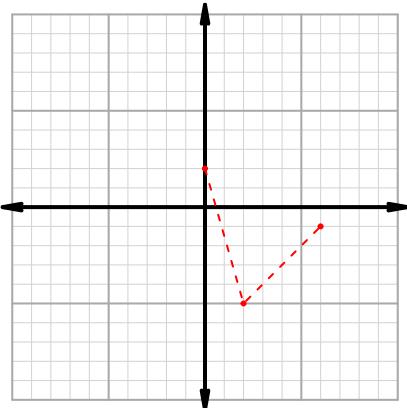
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

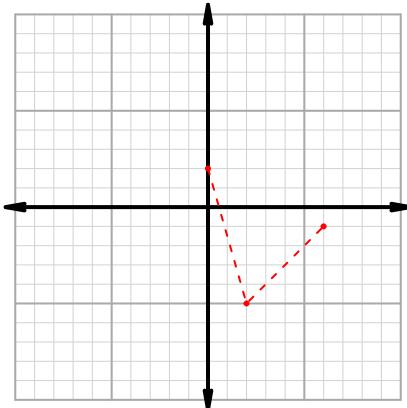
## Intervals, Transformations, and Slope EXAM (version 108)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

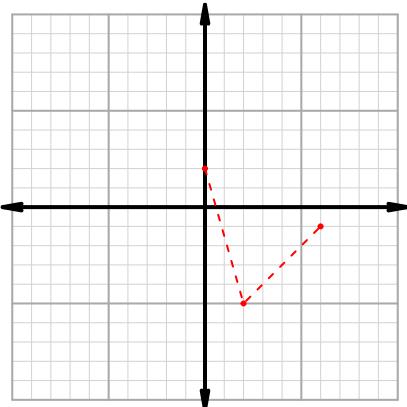
$$y = 2 \cdot f(x)$$



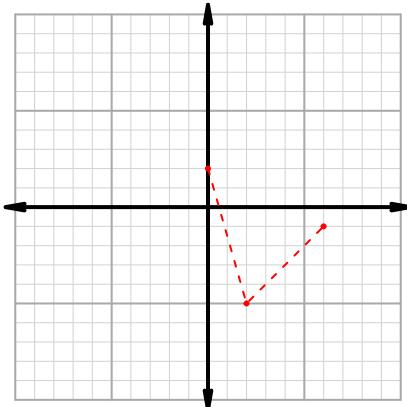
$$y = f(x) - 2$$



$$y = f(x - 2)$$



$$y = f(-2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 64$  and  $x_2 = 99$ . Express your answer as a reduced fraction.

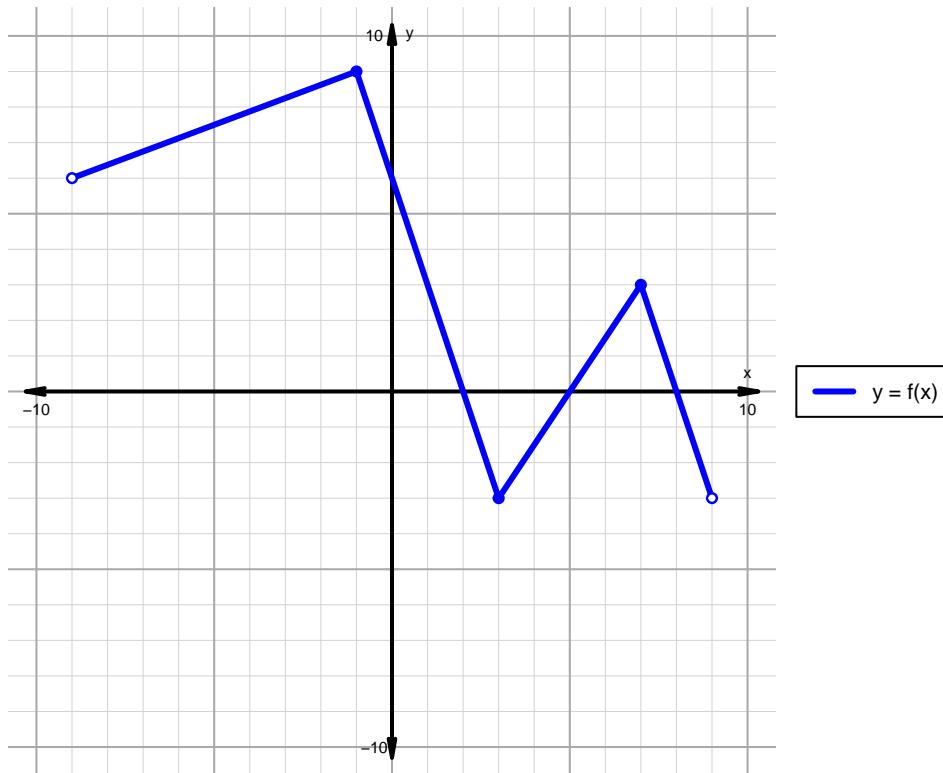
$x$	$g(x)$
25	64
53	99
64	53
99	25

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 109)**

1. The function  $f$  is graphed below.



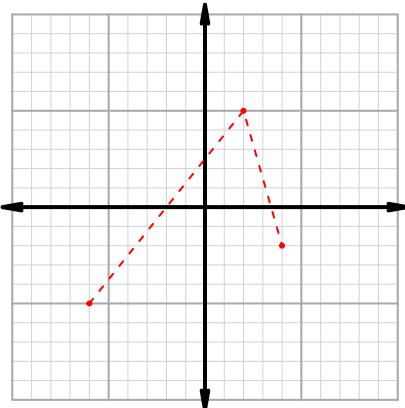
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

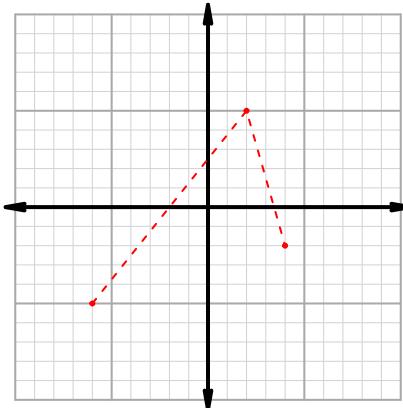
## Intervals, Transformations, and Slope EXAM (version 109)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

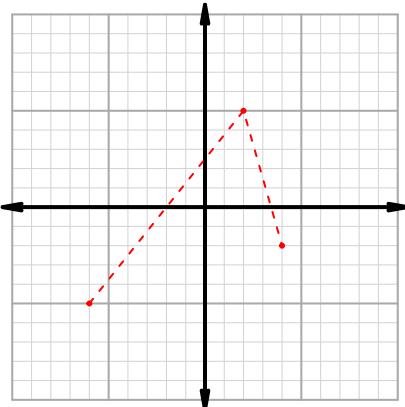
$$y = f(2 \cdot x)$$



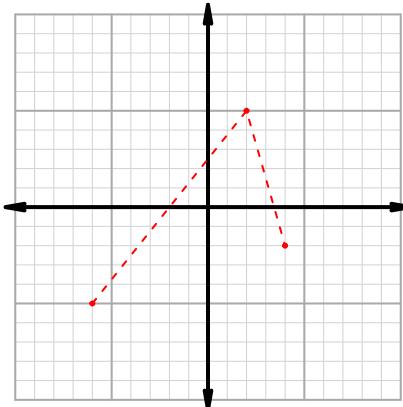
$$y = 2 \cdot f(x)$$



$$y = f(x + 2)$$



$$y = f(x) - 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 13$  and  $x_2 = 21$ . Express your answer as a reduced fraction.

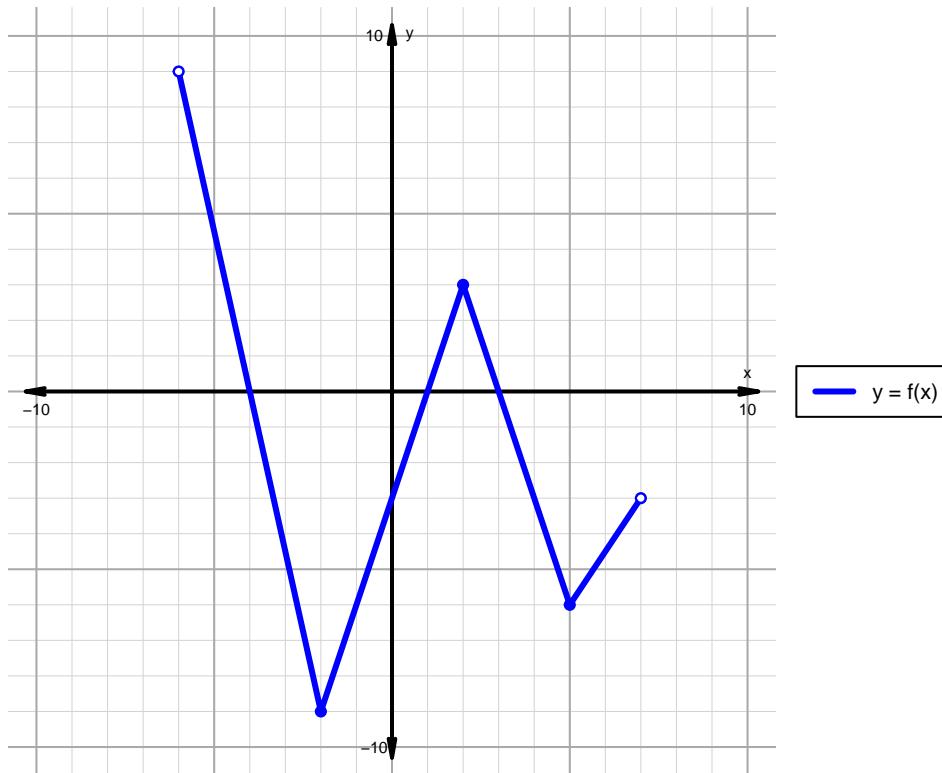
$x$	$g(x)$
13	38
21	48
38	21
48	13

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 110)**

1. The function  $f$  is graphed below.



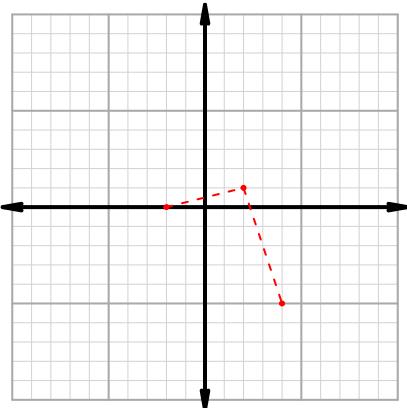
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

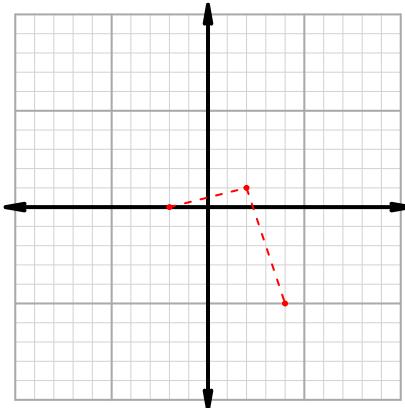
## Intervals, Transformations, and Slope EXAM (version 110)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

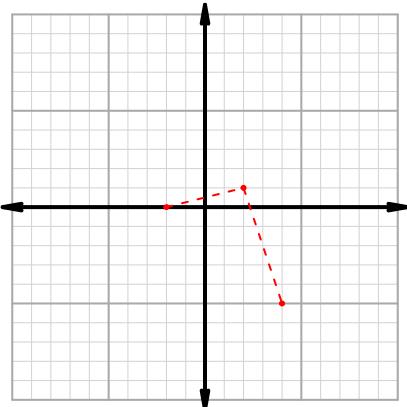
$$y = f(x - 2)$$



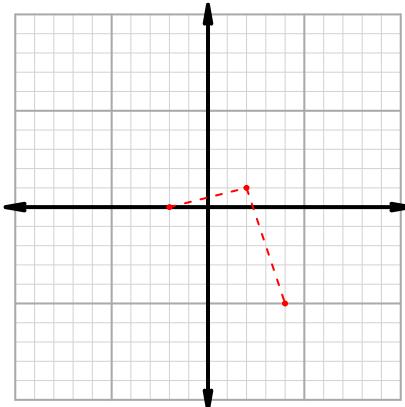
$$y = 2 \cdot f(x)$$



$$y = f(x) + 2$$



$$y = f(-2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 32$  and  $x_2 = 67$ . Express your answer as a reduced fraction.

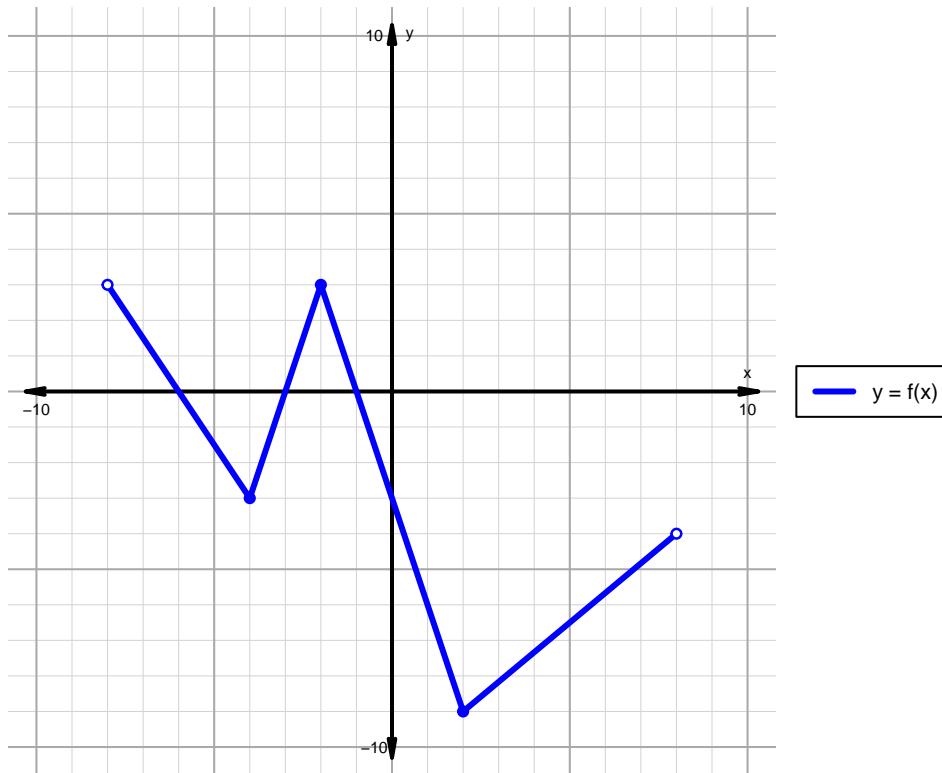
$x$	$g(x)$
9	32
32	72
67	9
72	67

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 111)**

1. The function  $f$  is graphed below.



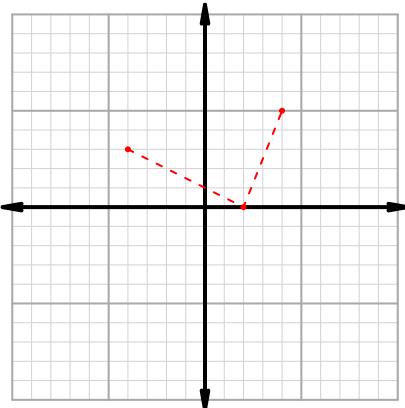
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

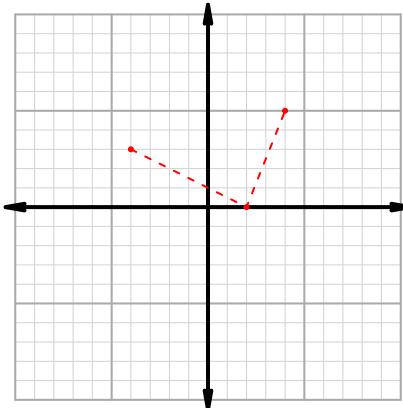
## Intervals, Transformations, and Slope EXAM (version 111)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

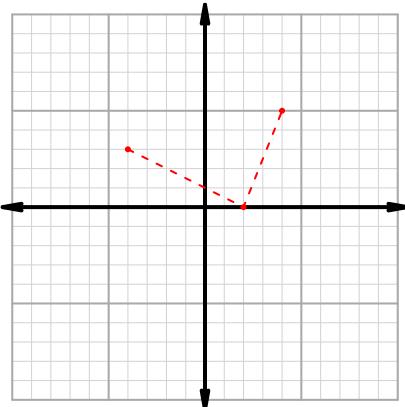
$$y = f(2 \cdot x)$$



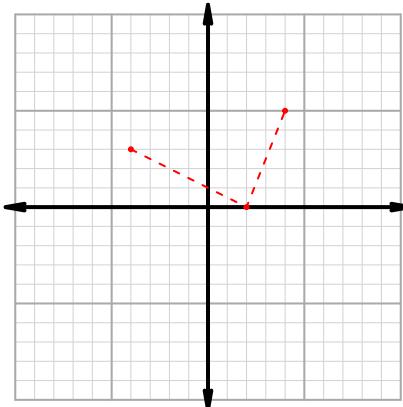
$$y = f(x) + 2$$



$$y = 2 \cdot f(x)$$



$$y = f(x - 2)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 70$  and  $x_2 = 78$ . Express your answer as a reduced fraction.

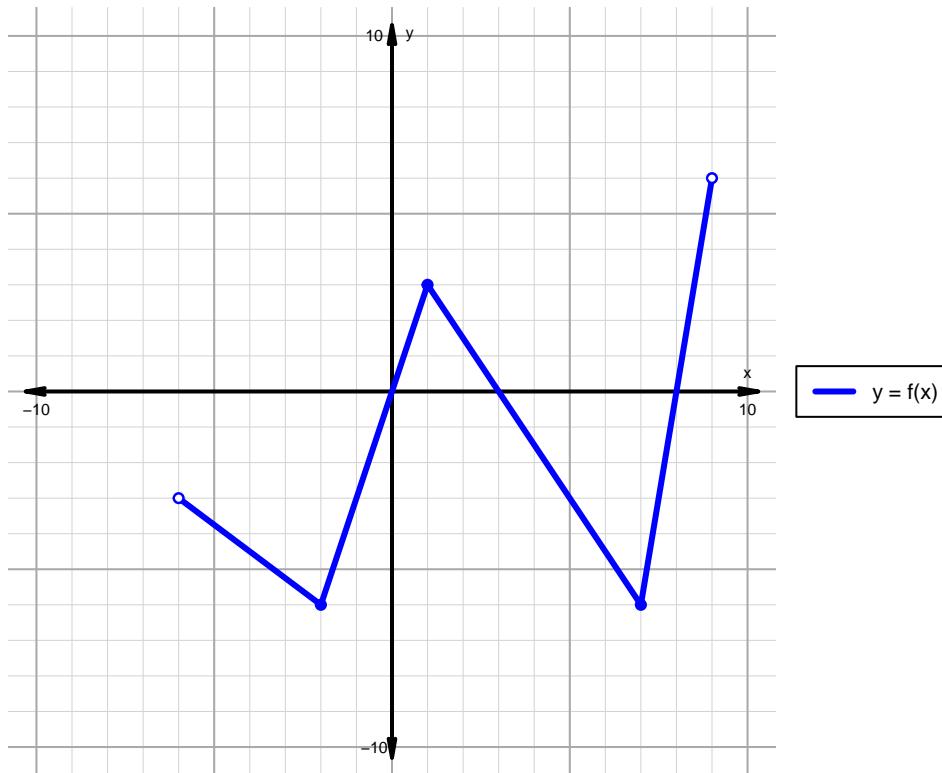
$x$	$g(x)$
60	70
64	78
70	64
78	60

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 112)**

1. The function  $f$  is graphed below.



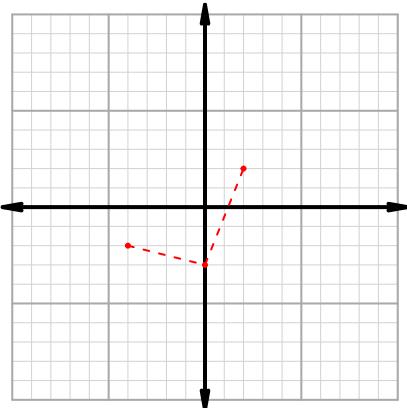
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

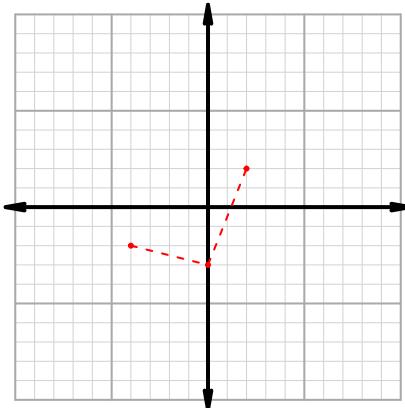
## Intervals, Transformations, and Slope EXAM (version 112)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

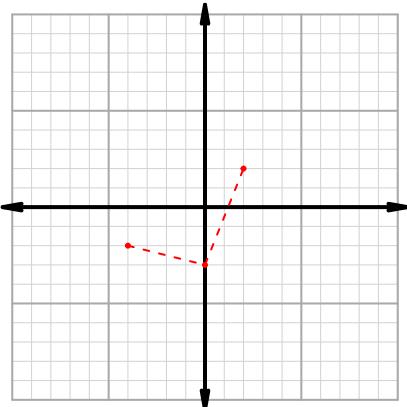
$$y = f(x - 2)$$



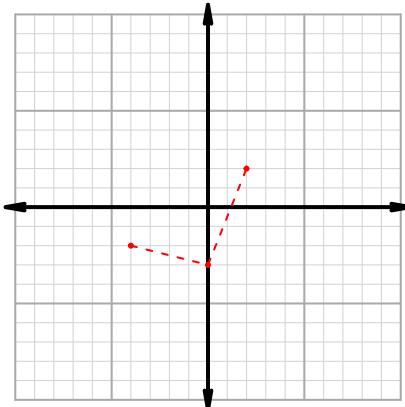
$$y = f(x) - 2$$



$$y = 2 \cdot f(x)$$



$$y = f(2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 38$  and  $x_2 = 65$ . Express your answer as a reduced fraction.

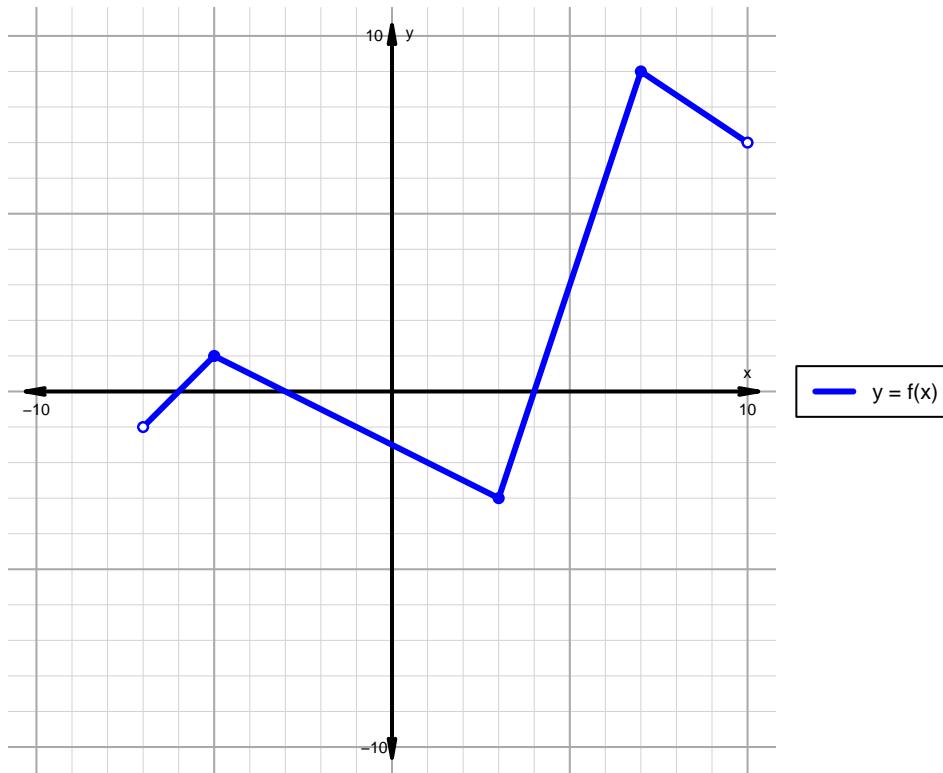
$x$	$g(x)$
27	65
38	27
48	38
65	48

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 113)**

1. The function  $f$  is graphed below.



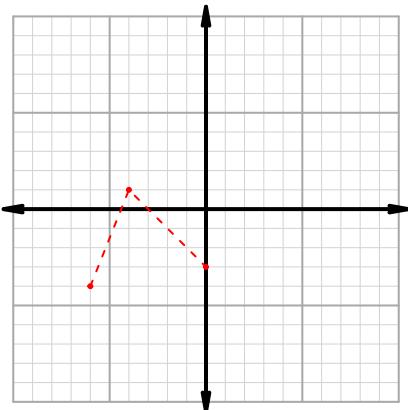
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

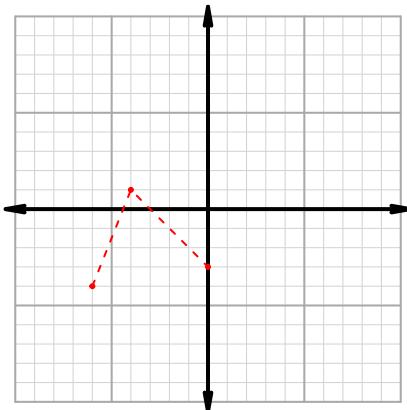
## Intervals, Transformations, and Slope EXAM (version 113)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

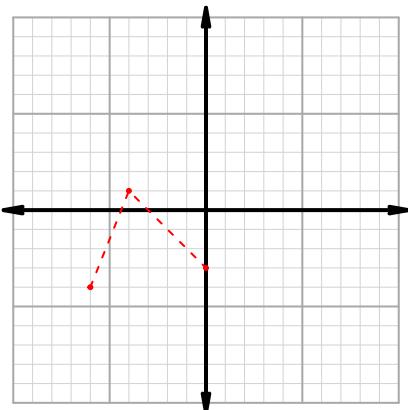
$$y = f(x) - 2$$



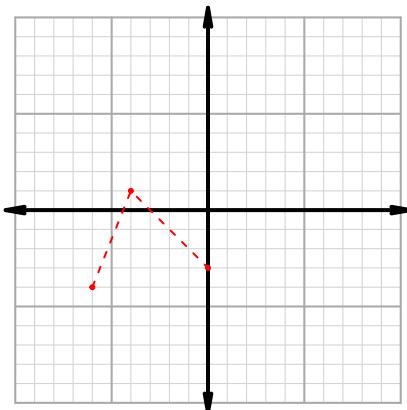
$$y = f(x - 2)$$



$$y = 2 \cdot f(x)$$



$$y = f(2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 15$  and  $x_2 = 78$ . Express your answer as a reduced fraction.

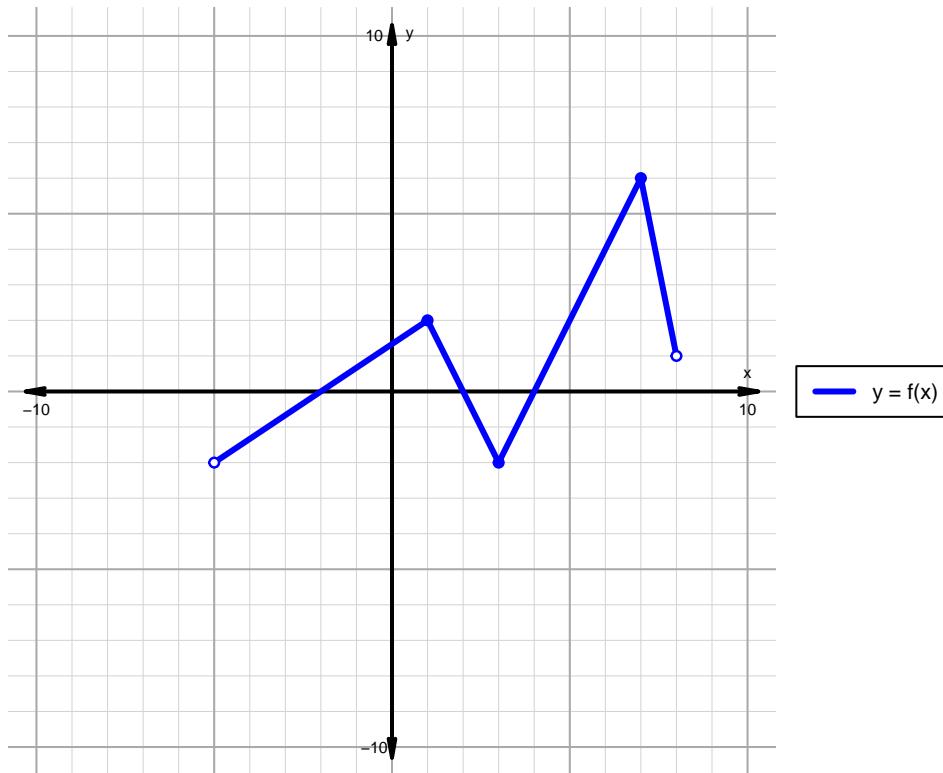
$x$	$g(x)$
15	82
28	15
78	28
82	78

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 114)**

1. The function  $f$  is graphed below.



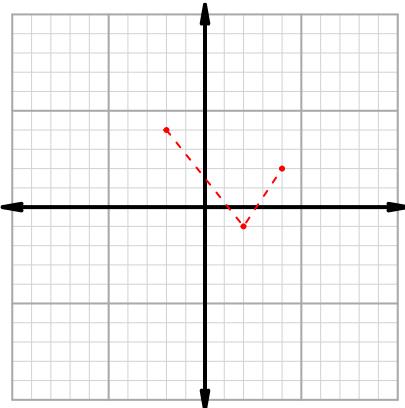
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

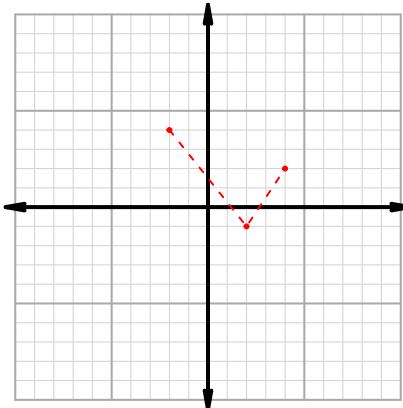
## Intervals, Transformations, and Slope EXAM (version 114)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

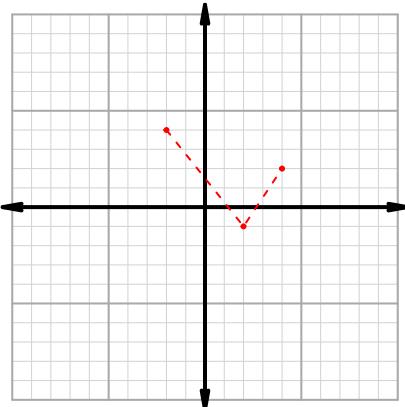
$$y = f(x) - 2$$



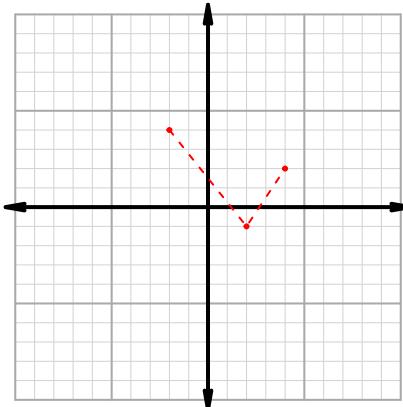
$$y = -2 \cdot f(x)$$



$$y = f(x - 2)$$



$$y = f(2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 14$  and  $x_2 = 86$ . Express your answer as a reduced fraction.

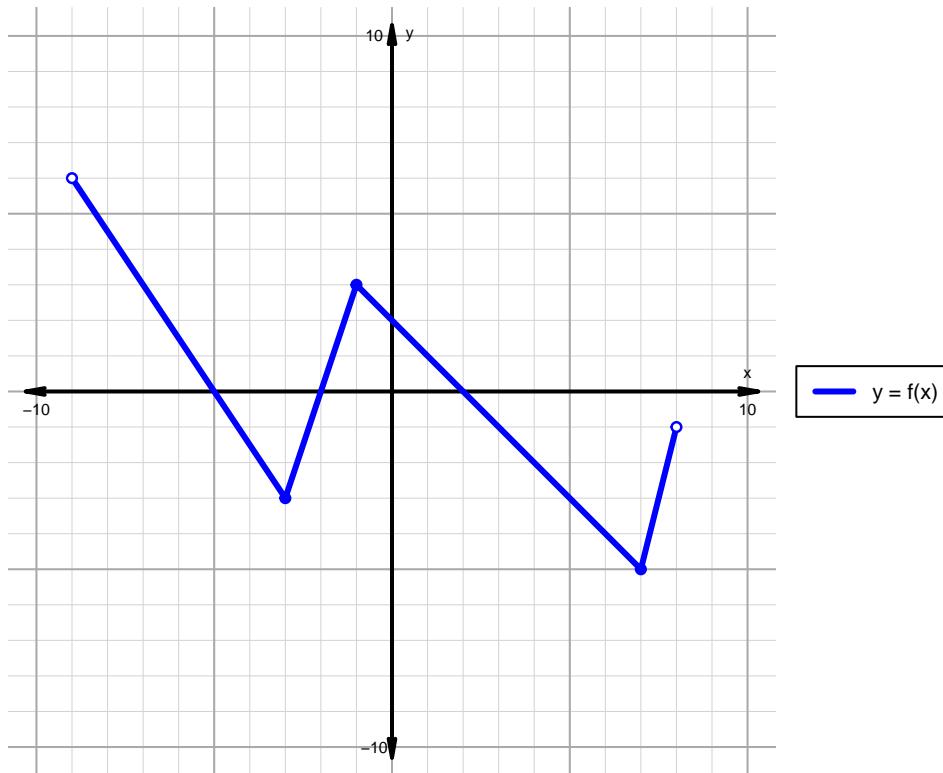
$x$	$g(x)$
14	63
63	86
72	14
86	72

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 115)**

1. The function  $f$  is graphed below.



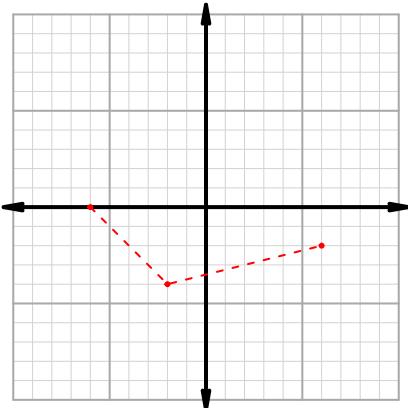
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

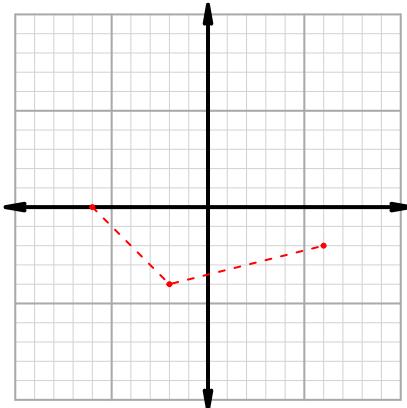
## Intervals, Transformations, and Slope EXAM (version 115)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

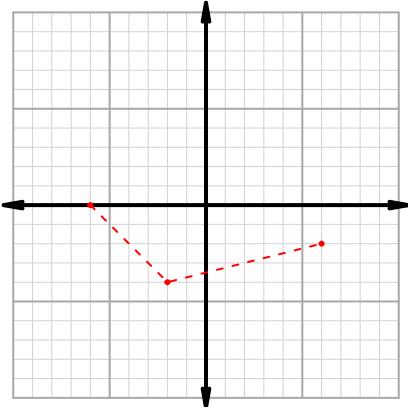
$$y = f(x+2)$$



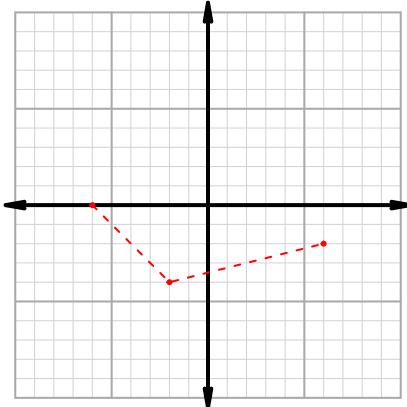
$$y = f(2 \cdot x)$$



$$y = f(x) - 2$$



$$y = 2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 43$  and  $x_2 = 71$ . Express your answer as a reduced fraction.

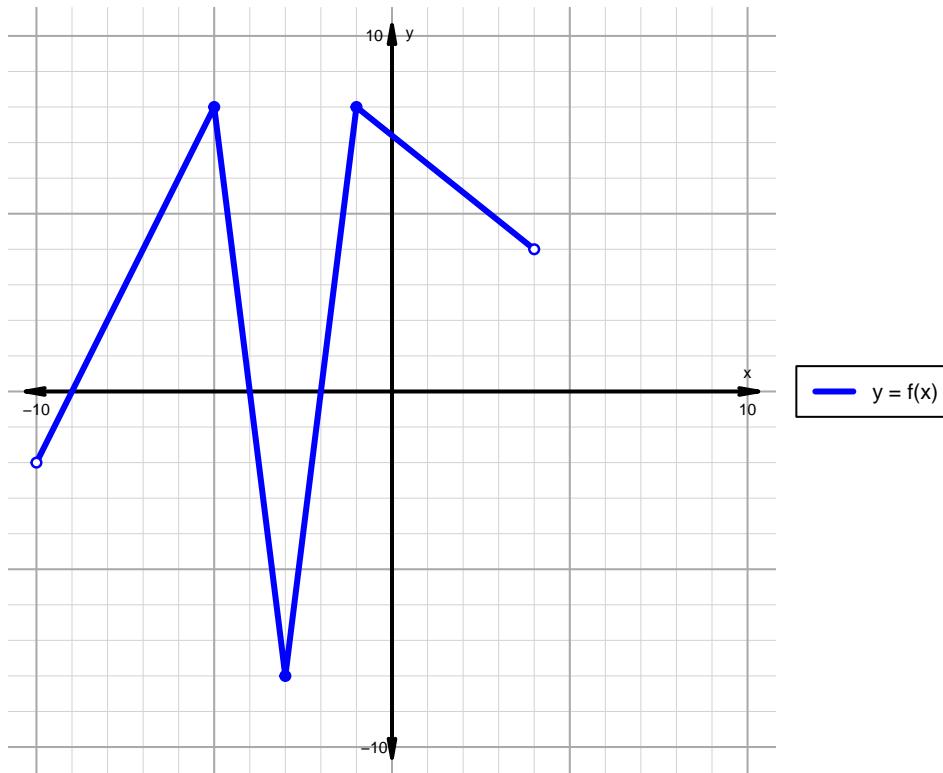
$x$	$g(x)$
43	55
55	71
67	43
71	67

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 116)**

1. The function  $f$  is graphed below.



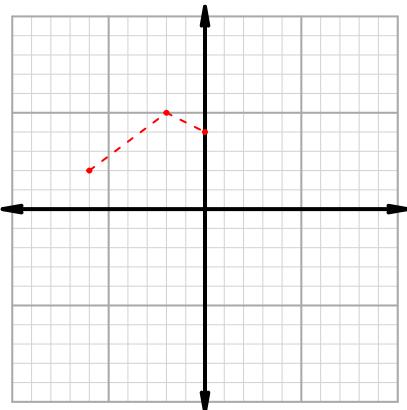
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

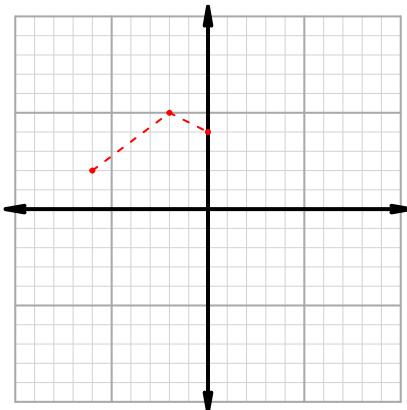
## Intervals, Transformations, and Slope EXAM (version 116)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

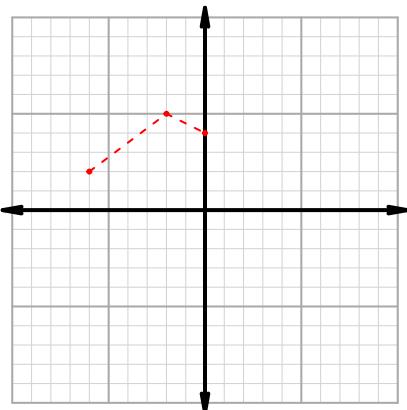
$$y = f(x) - 2$$



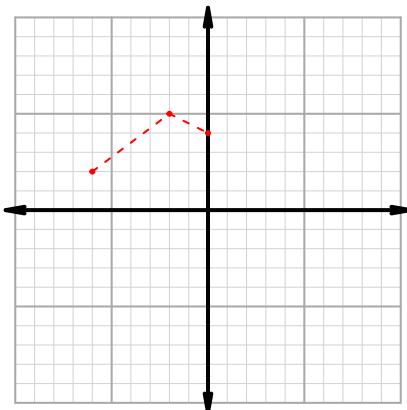
$$y = f(x - 2)$$



$$y = f(2 \cdot x)$$



$$y = -2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 49$  and  $x_2 = 81$ . Express your answer as a reduced fraction.

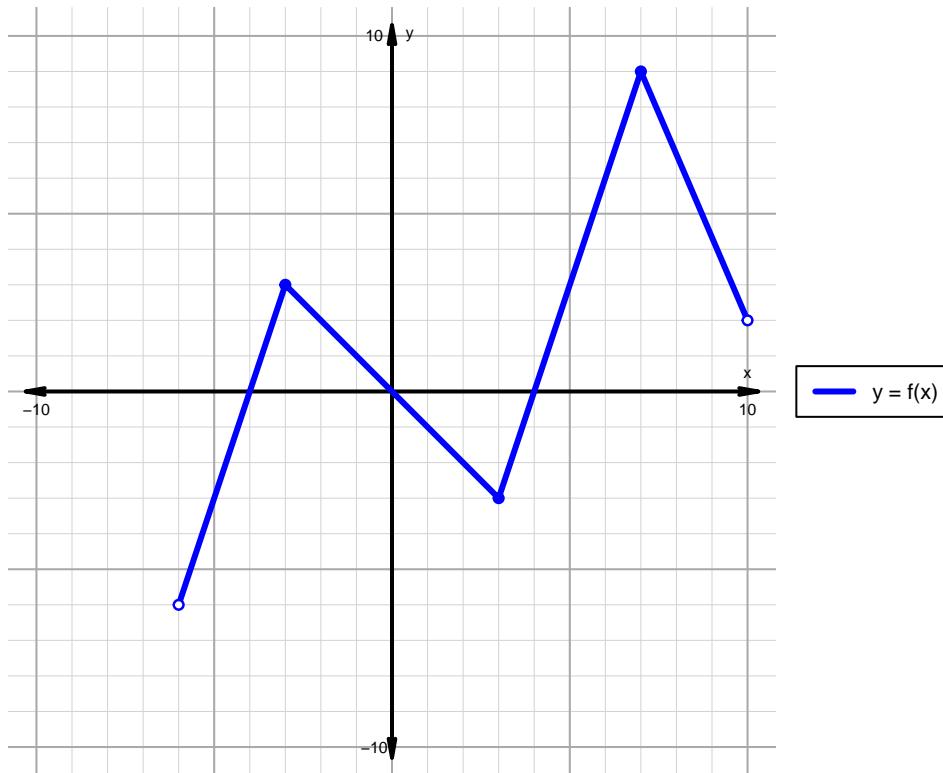
$x$	$g(x)$
49	91
55	49
81	55
91	81

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 117)**

1. The function  $f$  is graphed below.



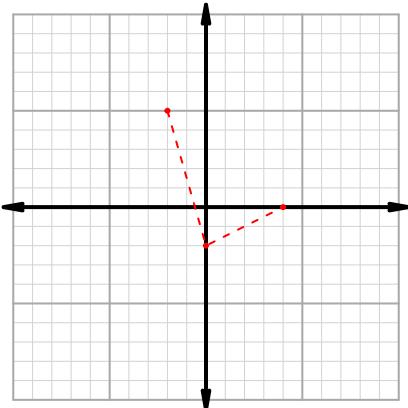
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

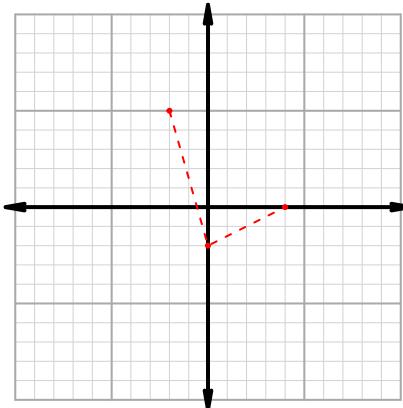
## Intervals, Transformations, and Slope EXAM (version 117)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

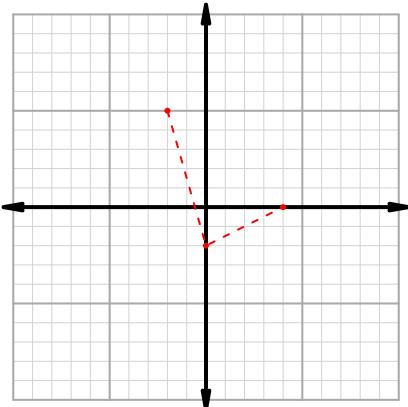
$$y = f(x+2)$$



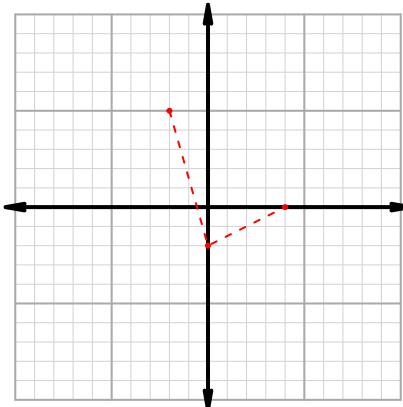
$$y = f(-2 \cdot x)$$



$$y = f(x) + 2$$



$$y = 2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 79$  and  $x_2 = 87$ . Express your answer as a reduced fraction.

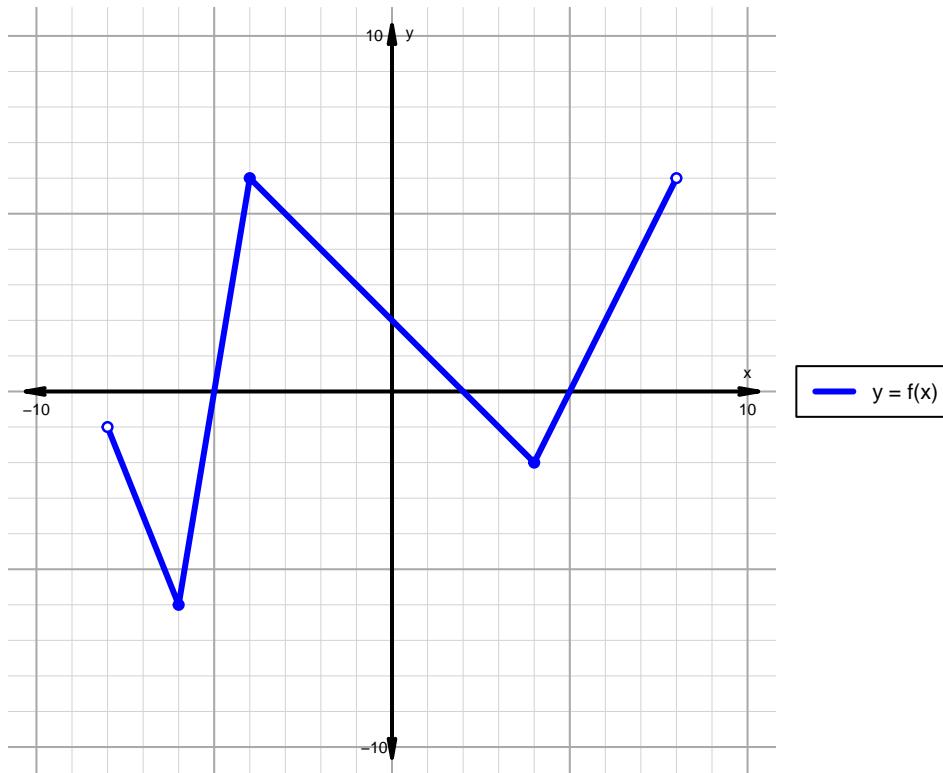
$x$	$g(x)$
19	87
37	79
79	19
87	37

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 118)**

1. The function  $f$  is graphed below.



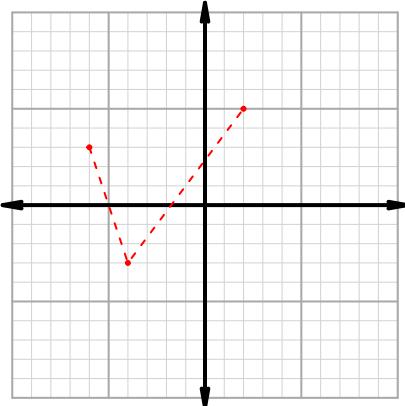
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

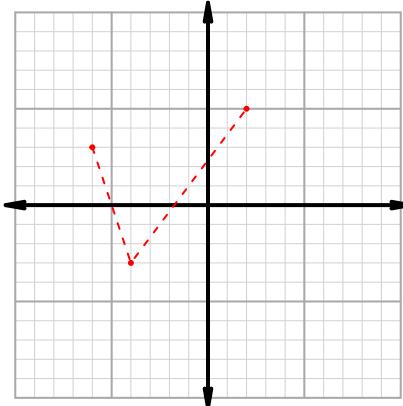
## Intervals, Transformations, and Slope EXAM (version 118)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

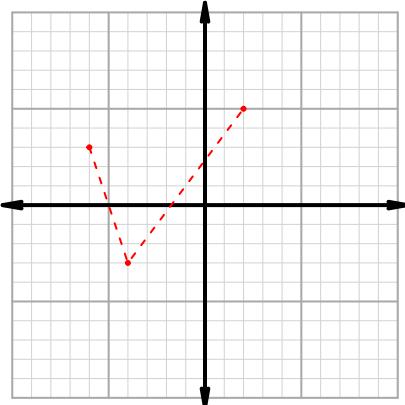
$$y = f(2 \cdot x)$$



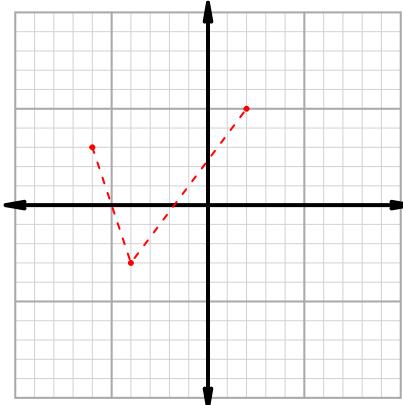
$$y = 2 \cdot f(x)$$



$$y = f(x - 2)$$



$$y = f(x) - 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 31$  and  $x_2 = 37$ . Express your answer as a reduced fraction.

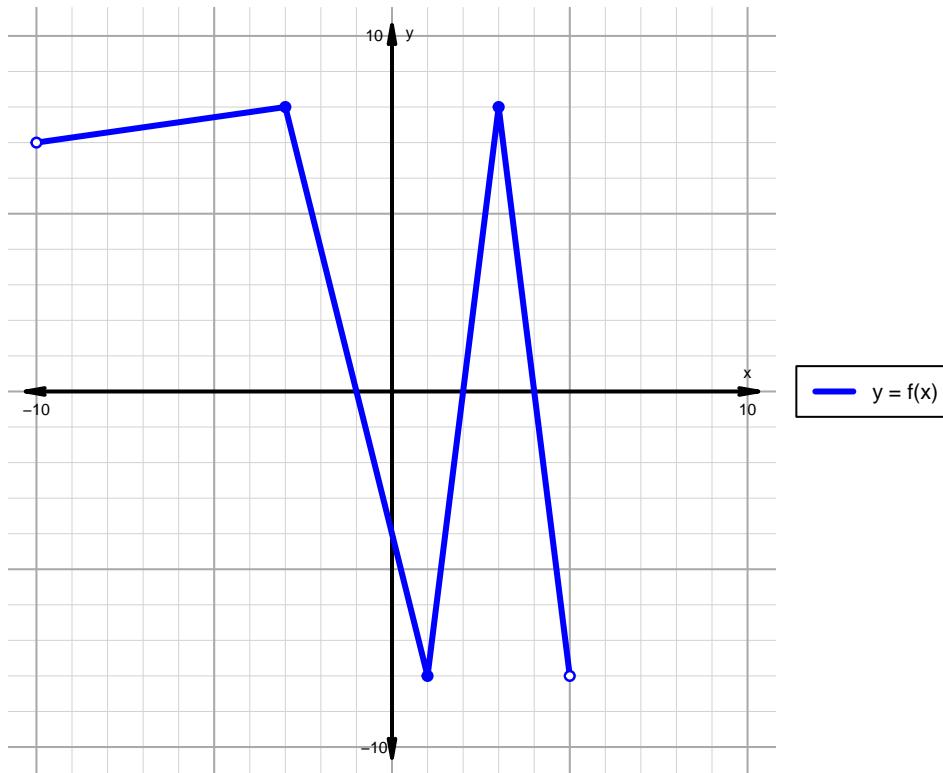
$x$	$g(x)$
10	31
24	37
31	24
37	10

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 119)**

1. The function  $f$  is graphed below.



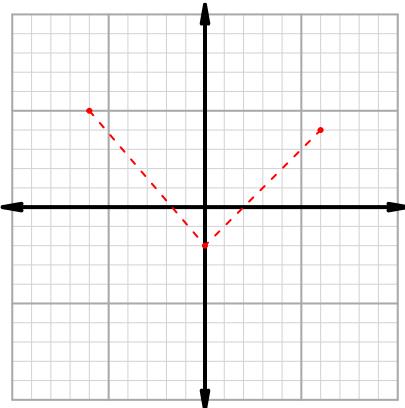
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

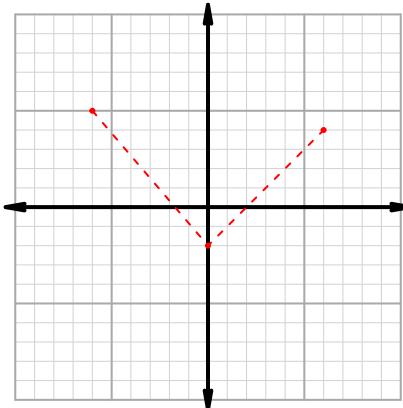
## Intervals, Transformations, and Slope EXAM (version 119)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

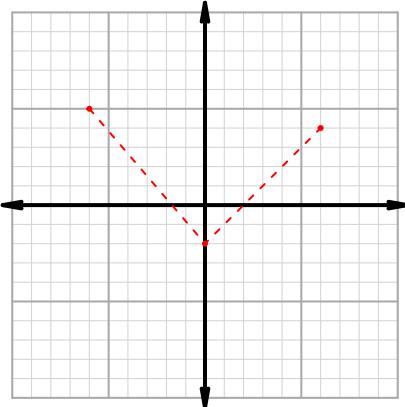
$$y = f(x+2)$$



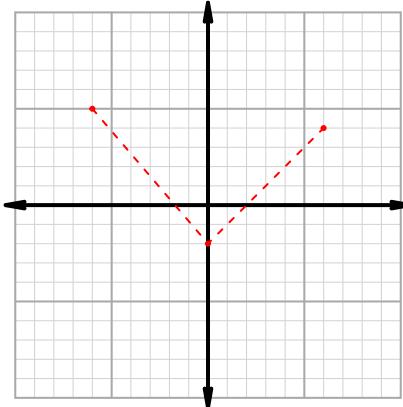
$$y = 2 \cdot f(x)$$



$$y = f(x) + 2$$



$$y = f(2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 17$  and  $x_2 = 71$ . Express your answer as a reduced fraction.

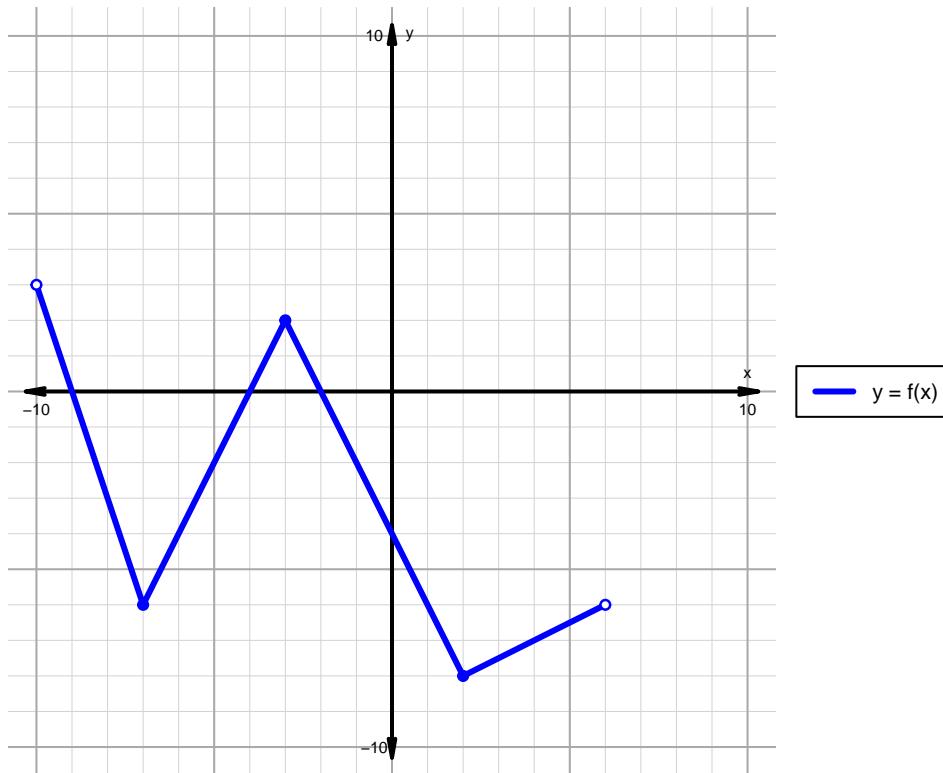
$x$	$g(x)$
17	69
69	71
71	93
93	17

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 120)**

1. The function  $f$  is graphed below.



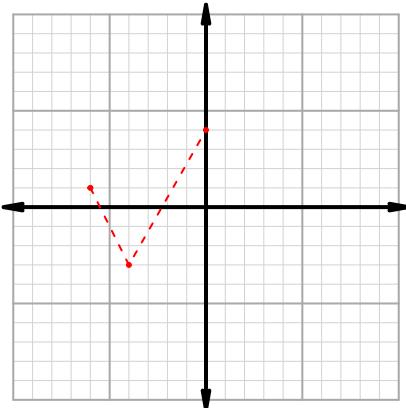
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

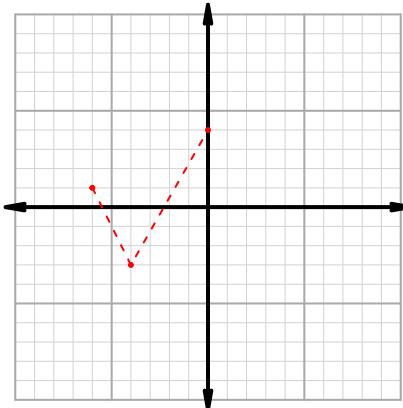
## Intervals, Transformations, and Slope EXAM (version 120)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

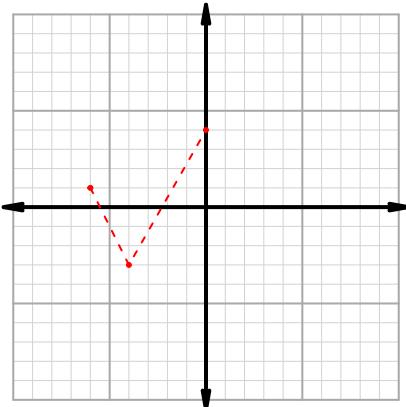
$$y = f(2 \cdot x)$$



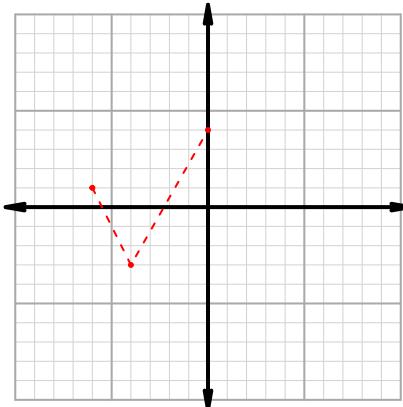
$$y = f(x - 2)$$



$$y = f(x) + 2$$



$$y = -2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 11$  and  $x_2 = 56$ . Express your answer as a reduced fraction.

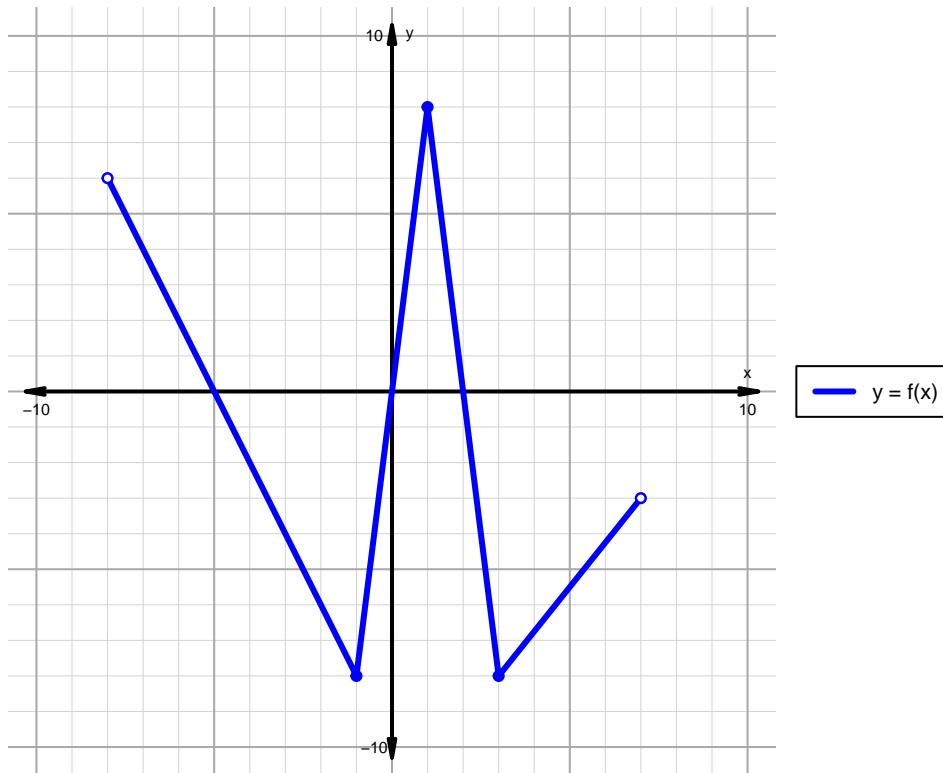
$x$	$g(x)$
11	32
32	56
56	59
59	11

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 121)**

1. The function  $f$  is graphed below.



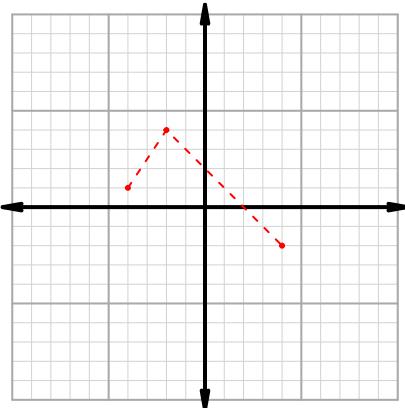
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

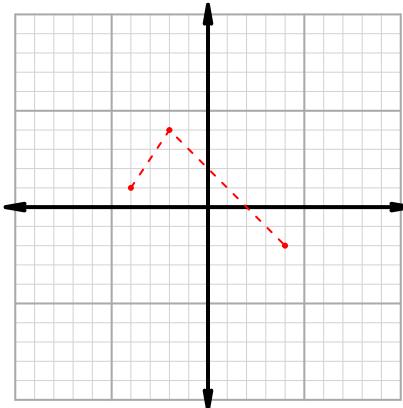
## Intervals, Transformations, and Slope EXAM (version 121)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

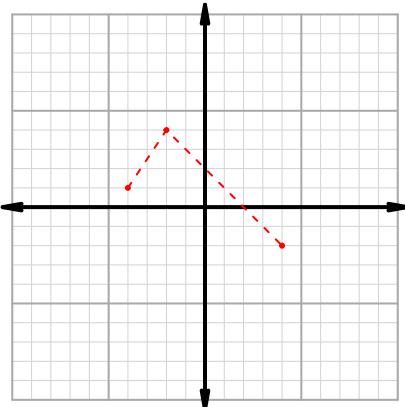
$$y = -2 \cdot f(x)$$



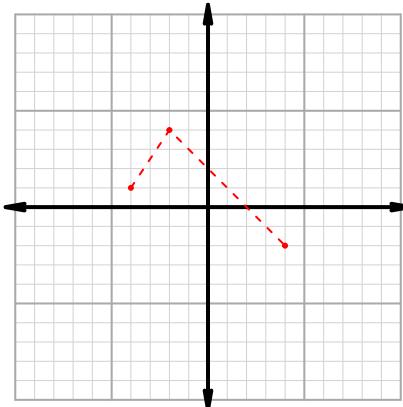
$$y = f(x) + 2$$



$$y = f(-2 \cdot x)$$



$$y = f(x - 2)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 18$  and  $x_2 = 33$ . Express your answer as a reduced fraction.

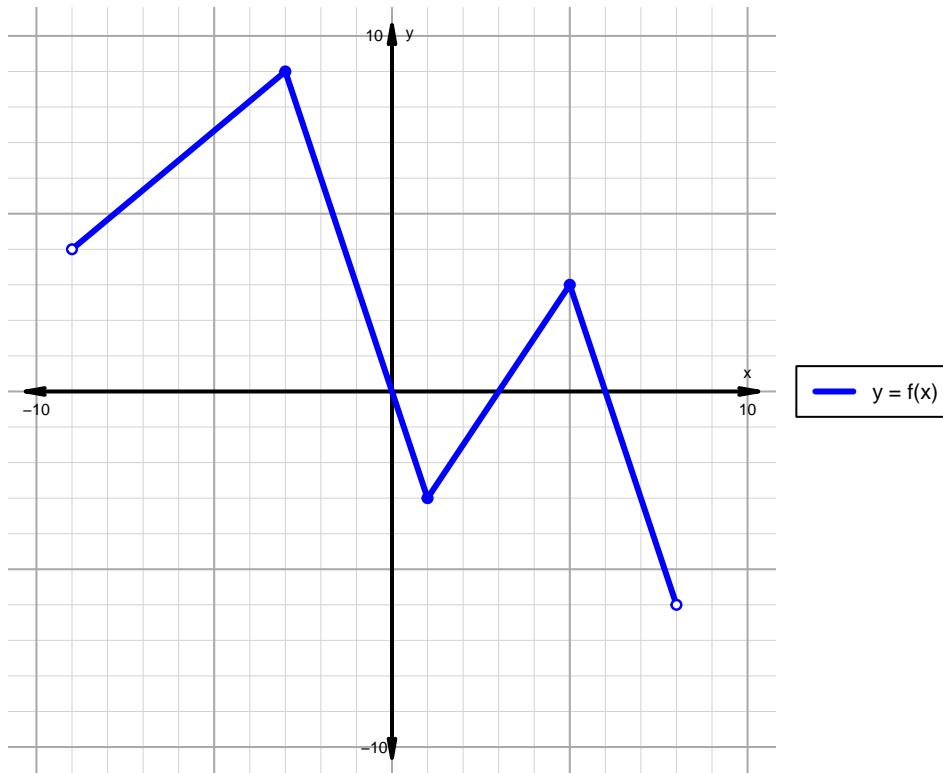
$x$	$g(x)$
18	55
33	43
43	18
55	33

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 122)**

1. The function  $f$  is graphed below.



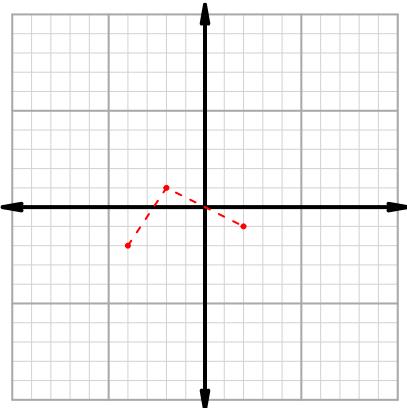
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

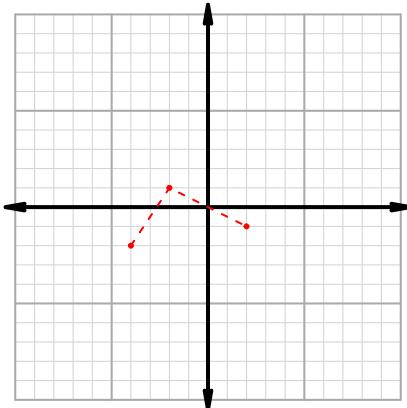
## Intervals, Transformations, and Slope EXAM (version 122)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

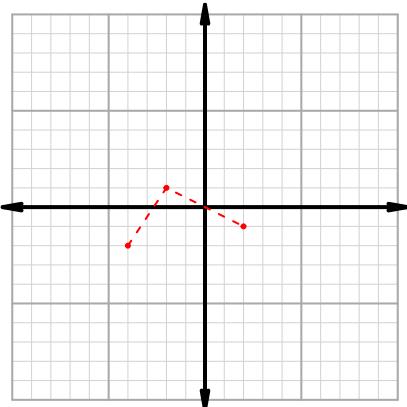
$$y = -2 \cdot f(x)$$



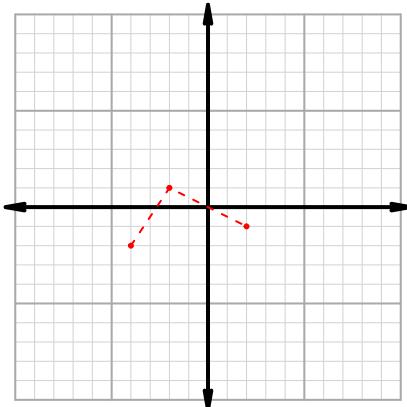
$$y = f(x + 2)$$



$$y = f(-2 \cdot x)$$



$$y = f(x) - 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 33$  and  $x_2 = 49$ . Express your answer as a reduced fraction.

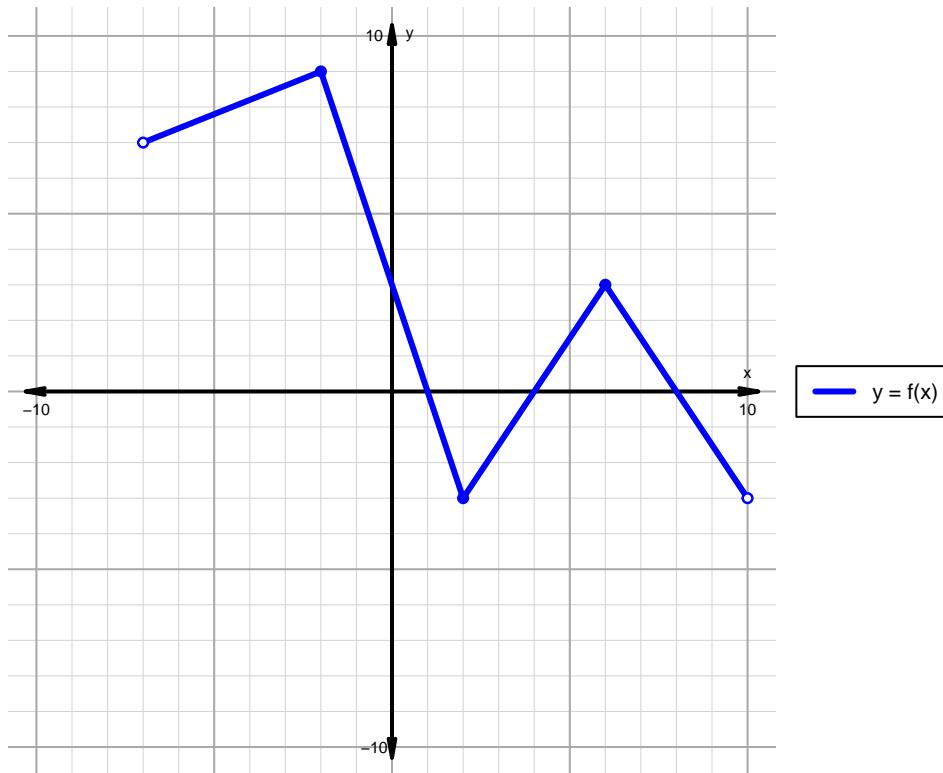
$x$	$g(x)$
33	66
49	74
66	49
74	33

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 123)**

1. The function  $f$  is graphed below.



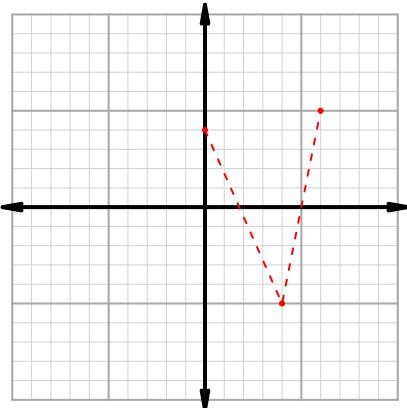
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

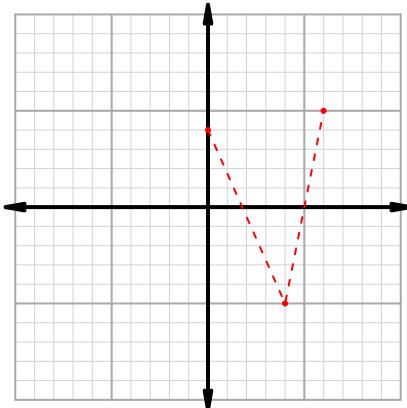
## Intervals, Transformations, and Slope EXAM (version 123)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

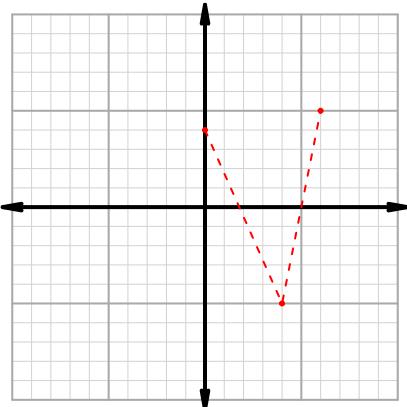
$$y = 2 \cdot f(x)$$



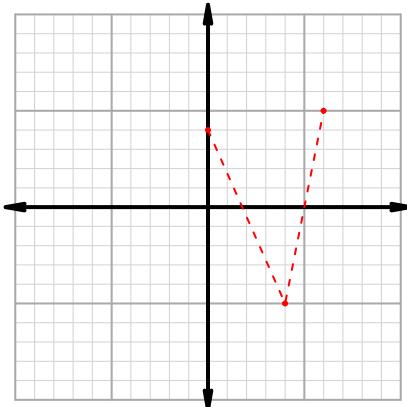
$$y = f(-2 \cdot x)$$



$$y = f(x - 2)$$



$$y = f(x) - 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 16$  and  $x_2 = 88$ . Express your answer as a reduced fraction.

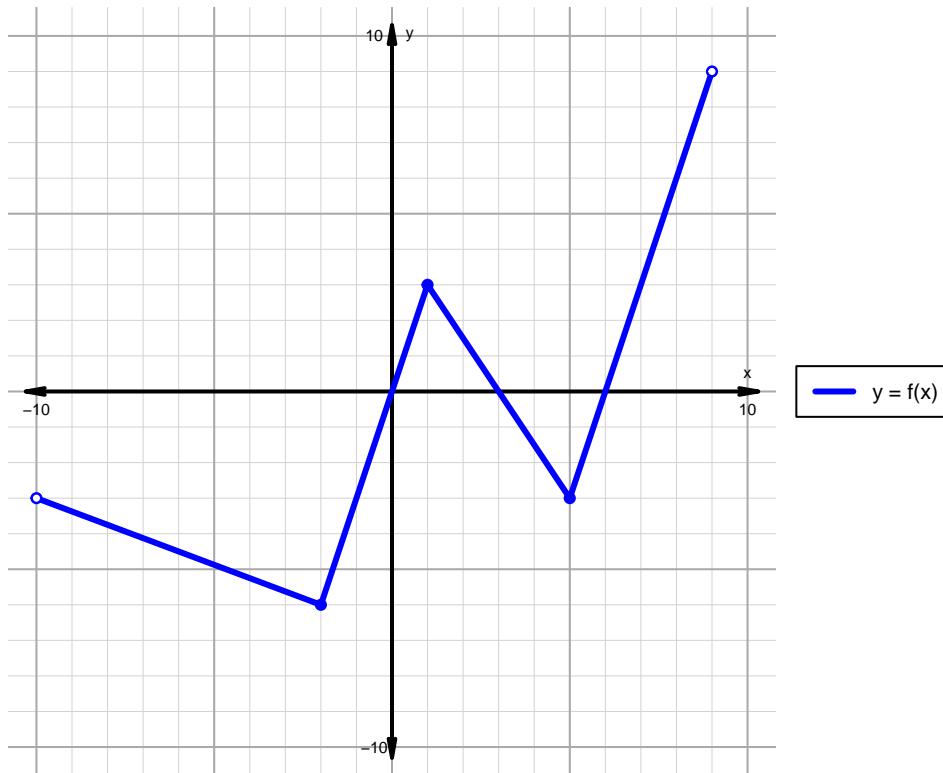
$x$	$g(x)$
16	27
27	88
88	91
91	16

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 124)**

1. The function  $f$  is graphed below.



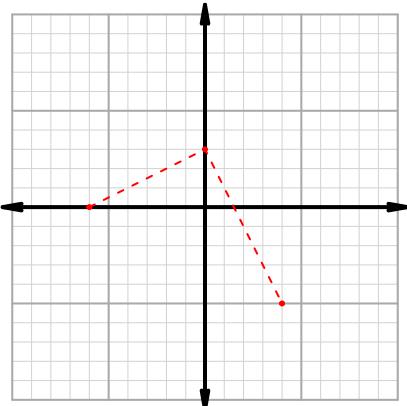
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

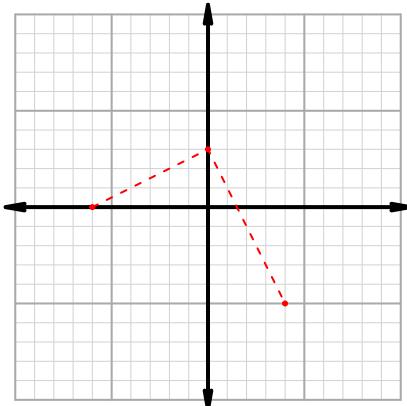
## Intervals, Transformations, and Slope EXAM (version 124)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

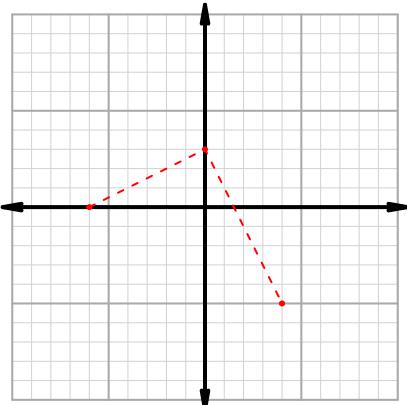
$$y = f(x+2)$$



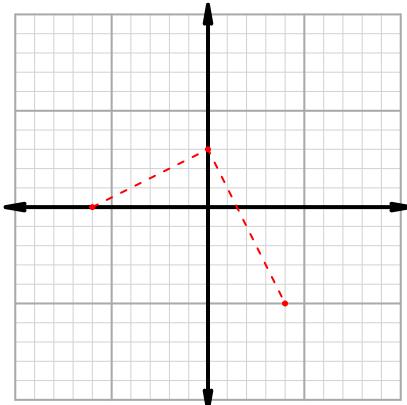
$$y = f(-2 \cdot x)$$



$$y = -2 \cdot f(x)$$



$$y = f(x) + 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 36$  and  $x_2 = 51$ . Express your answer as a reduced fraction.

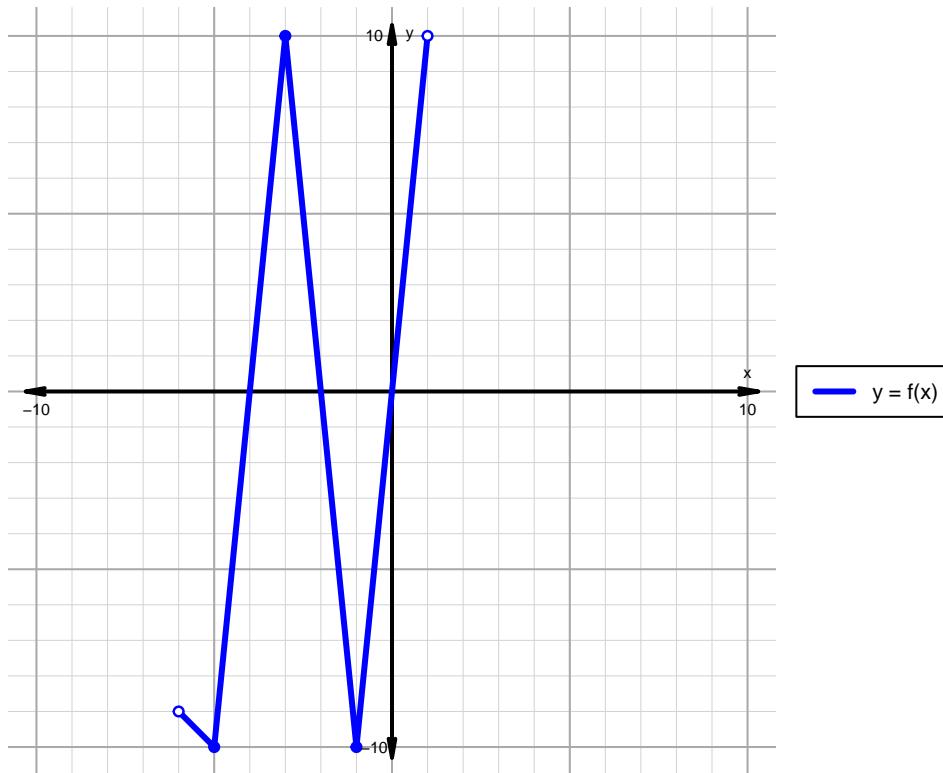
$x$	$g(x)$
36	44
44	51
50	36
51	50

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 125)**

1. The function  $f$  is graphed below.



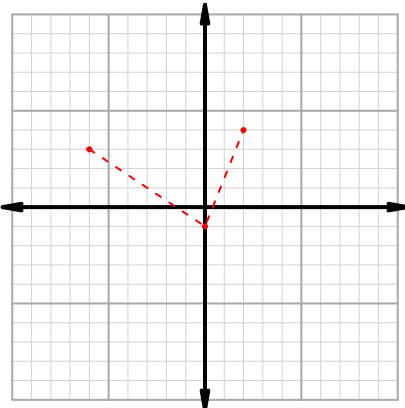
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

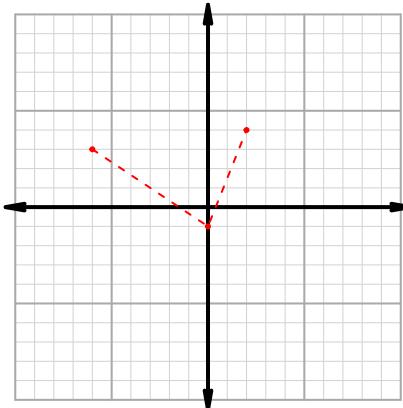
## Intervals, Transformations, and Slope EXAM (version 125)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

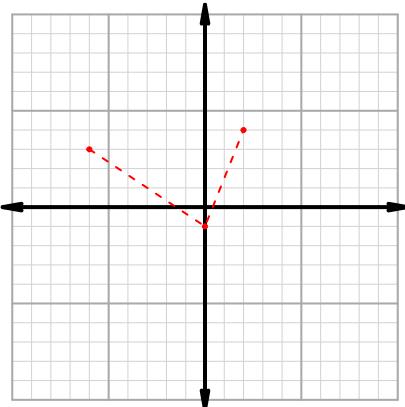
$$y = f(x) + 2$$



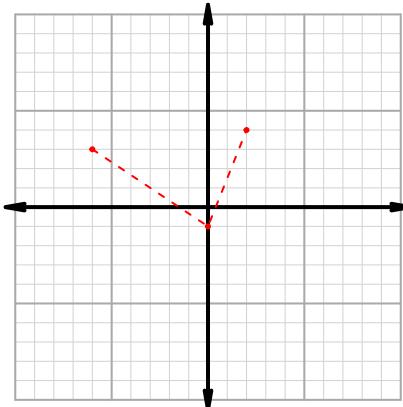
$$y = 2 \cdot f(x)$$



$$y = f(2 \cdot x)$$



$$y = f(x+2)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 86$  and  $x_2 = 98$ . Express your answer as a reduced fraction.

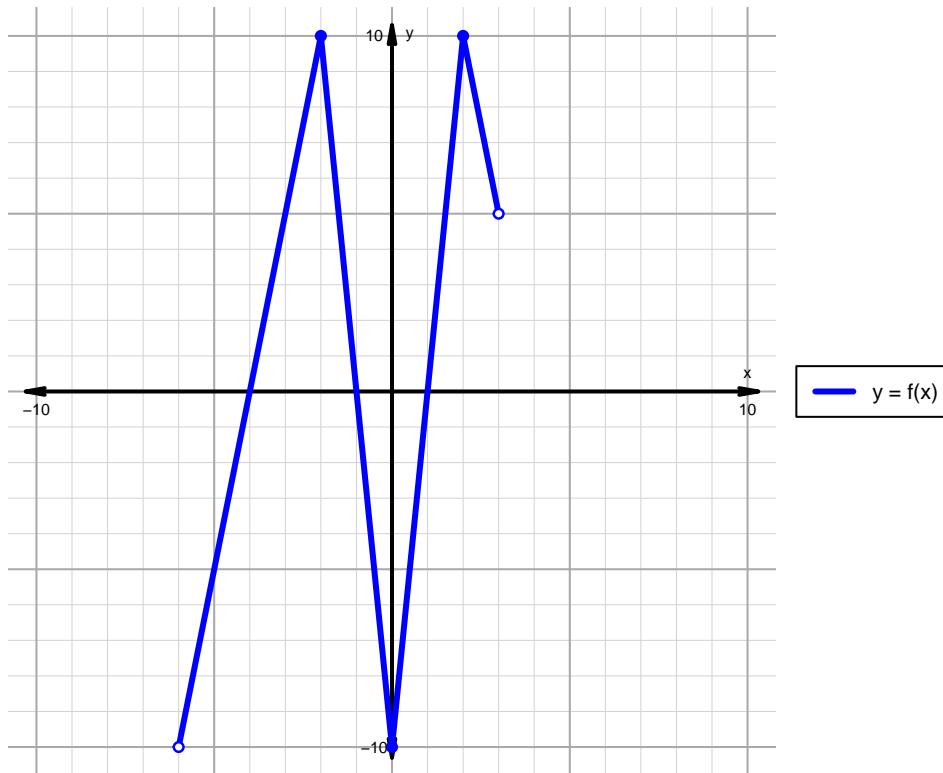
$x$	$g(x)$
56	98
66	86
86	56
98	66

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 126)**

1. The function  $f$  is graphed below.



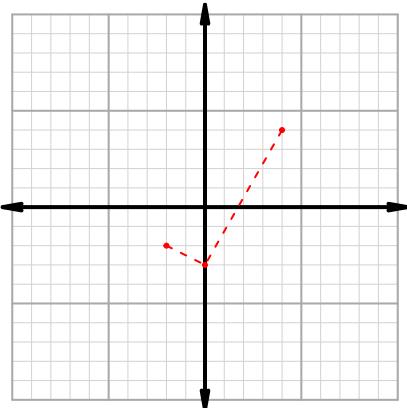
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

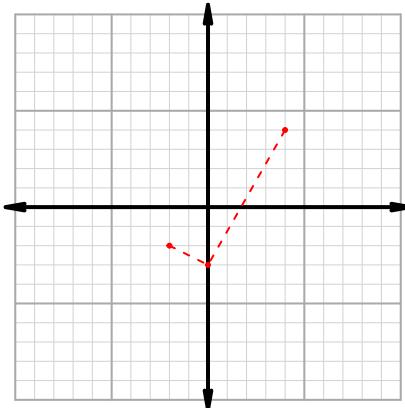
## Intervals, Transformations, and Slope EXAM (version 126)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

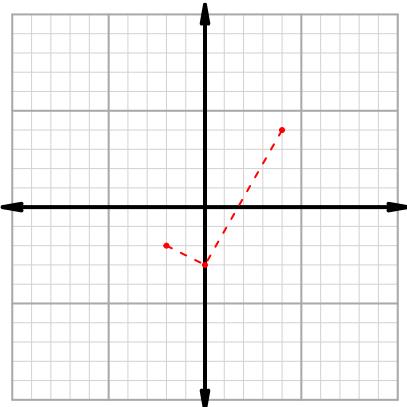
$$y = f(x+2)$$



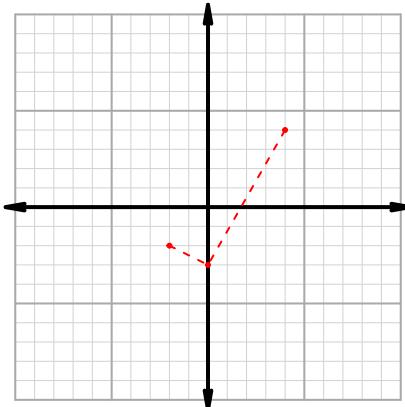
$$y = -2 \cdot f(x)$$



$$y = f(2 \cdot x)$$



$$y = f(x) + 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 25$  and  $x_2 = 50$ . Express your answer as a reduced fraction.

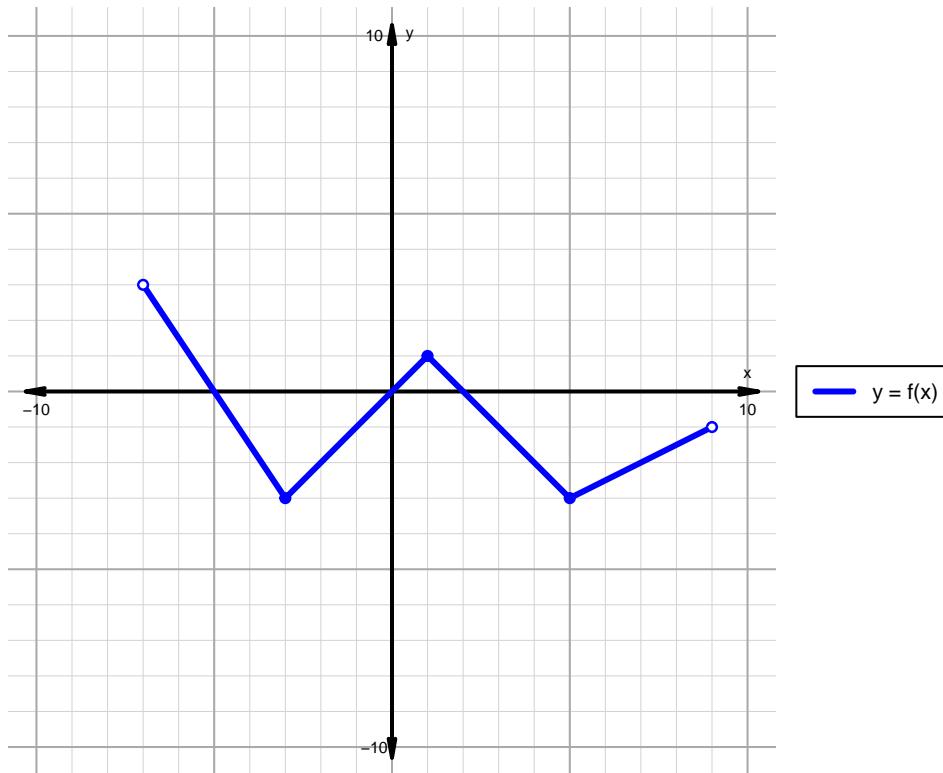
$x$	$g(x)$
25	56
50	61
56	50
61	25

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 127)**

1. The function  $f$  is graphed below.



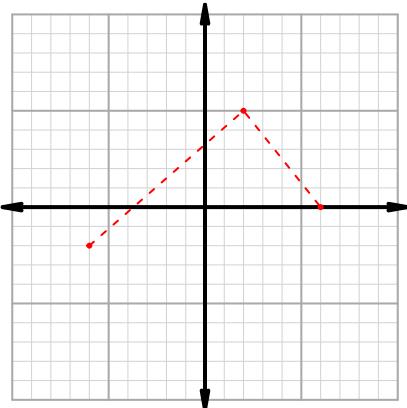
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

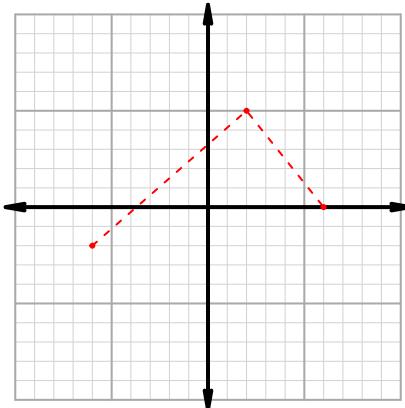
## Intervals, Transformations, and Slope EXAM (version 127)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

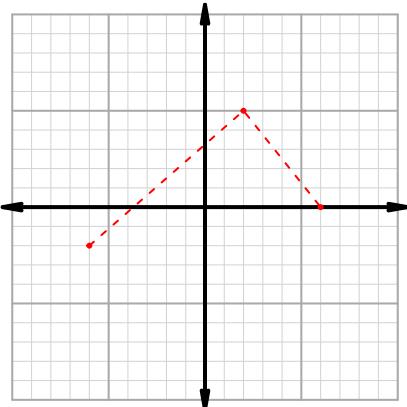
$$y = f(2 \cdot x)$$



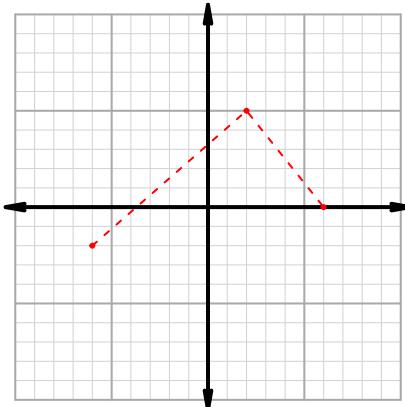
$$y = f(x + 2)$$



$$y = f(x) - 2$$



$$y = -2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 36$  and  $x_2 = 71$ . Express your answer as a reduced fraction.

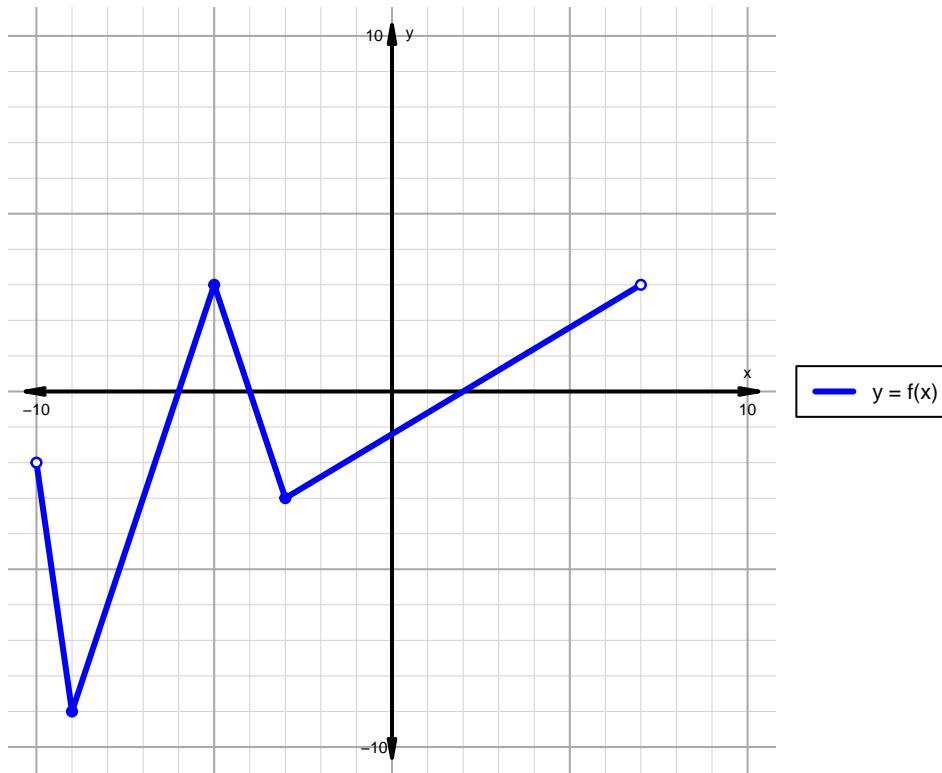
$x$	$g(x)$
36	43
43	71
48	36
71	48

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 128)**

1. The function  $f$  is graphed below.



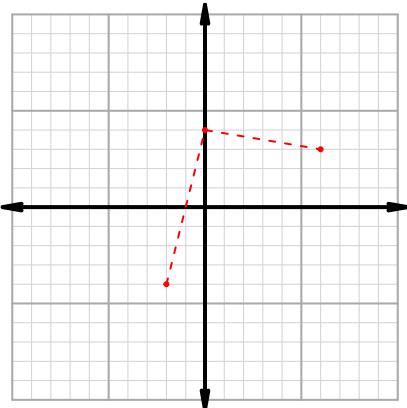
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

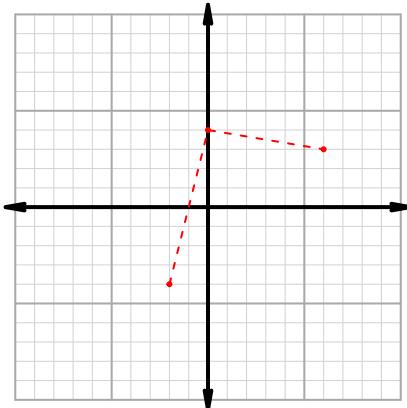
## Intervals, Transformations, and Slope EXAM (version 128)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

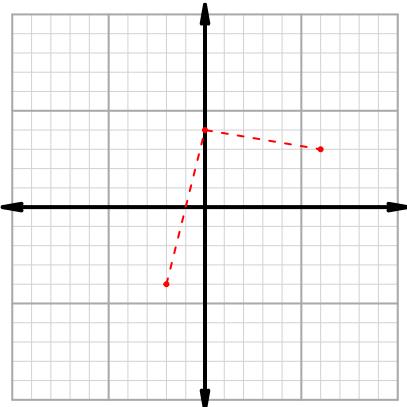
$$y = f(x) - 2$$



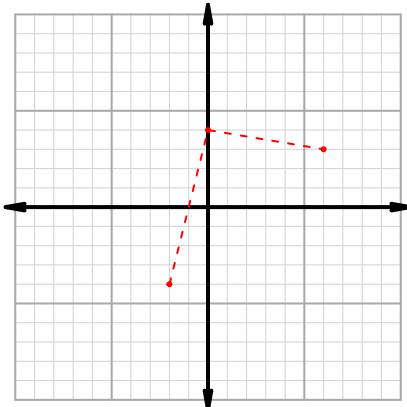
$$y = -2 \cdot f(x)$$



$$y = f(2 \cdot x)$$



$$y = f(x + 2)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 68$  and  $x_2 = 83$ . Express your answer as a reduced fraction.

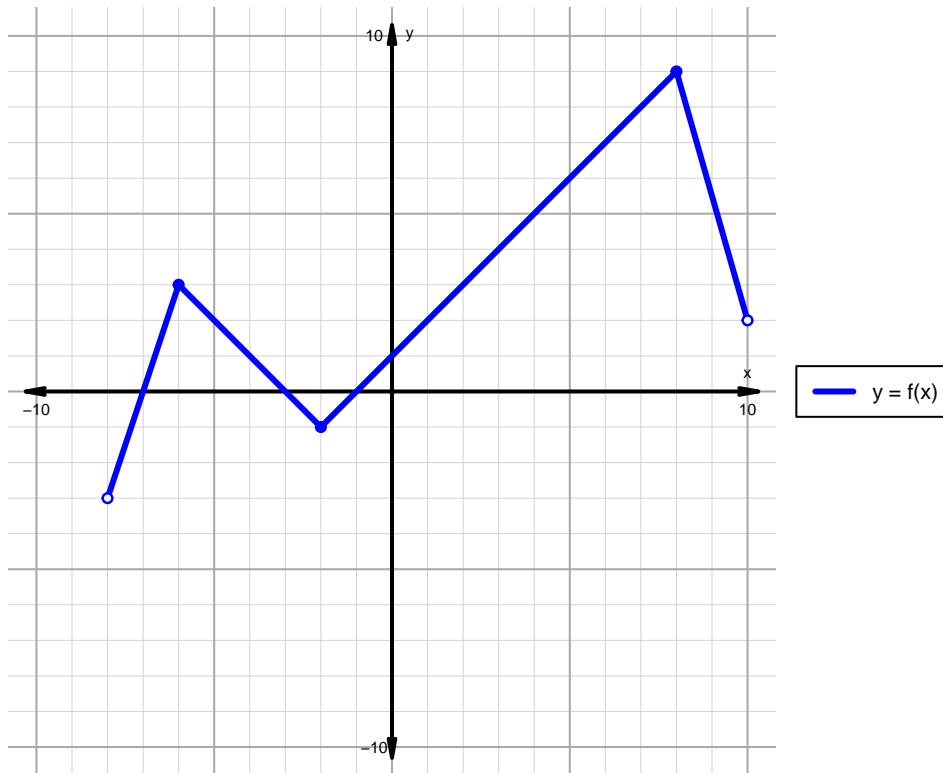
$x$	$g(x)$
26	83
44	68
68	26
83	44

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 129)**

1. The function  $f$  is graphed below.



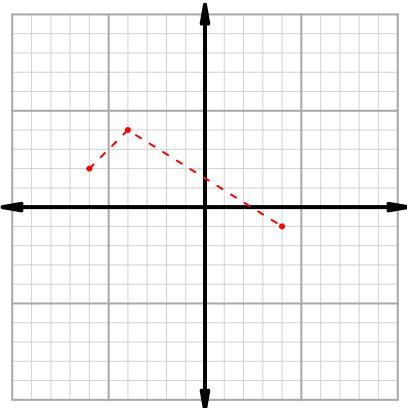
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

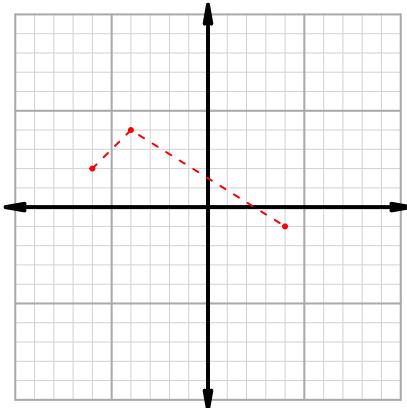
## Intervals, Transformations, and Slope EXAM (version 129)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

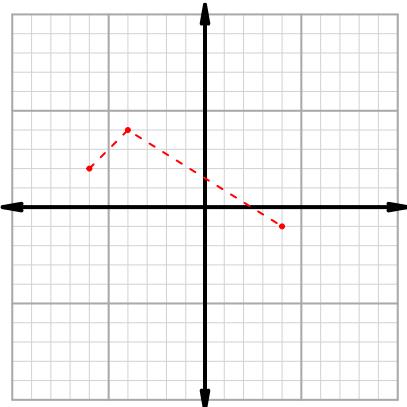
$$y = 2 \cdot f(x)$$



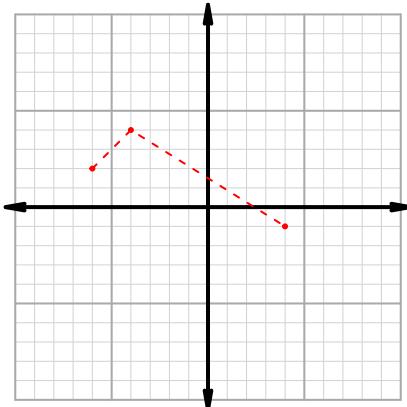
$$y = f(x - 2)$$



$$y = f(x) - 2$$



$$y = f(-2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 57$  and  $x_2 = 77$ . Express your answer as a reduced fraction.

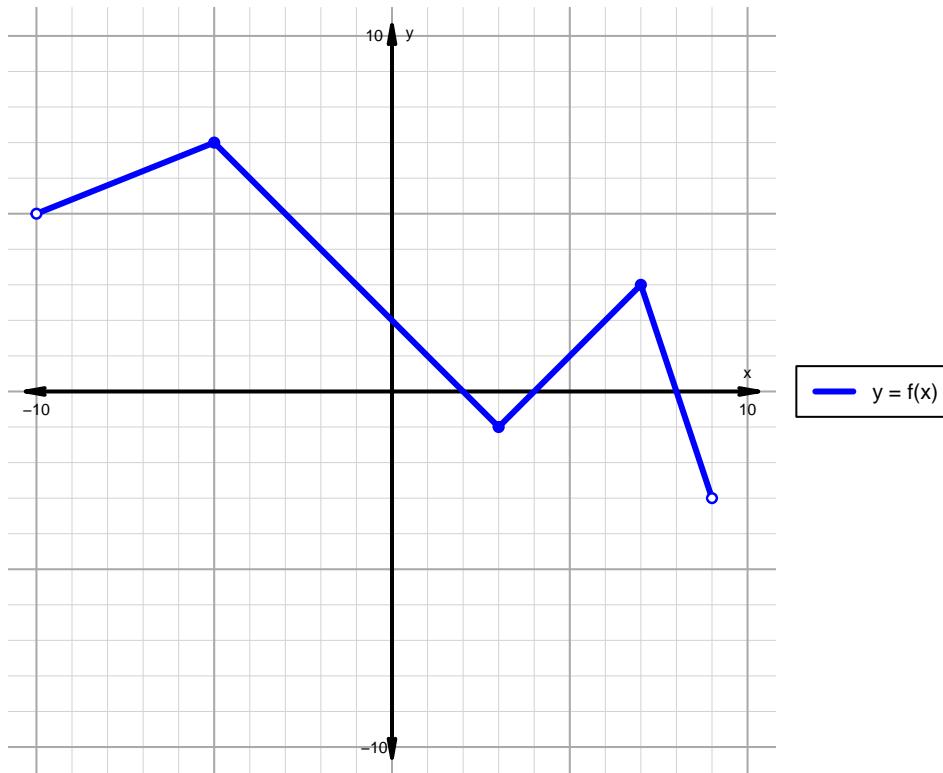
$x$	$g(x)$
57	73
73	77
77	85
85	57

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 130)**

1. The function  $f$  is graphed below.



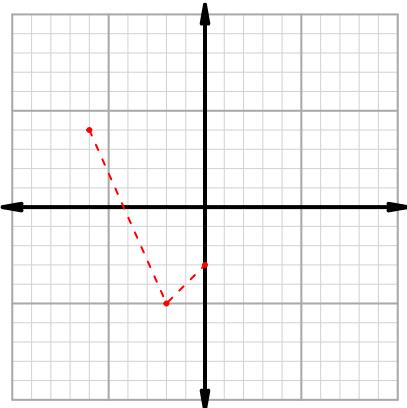
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

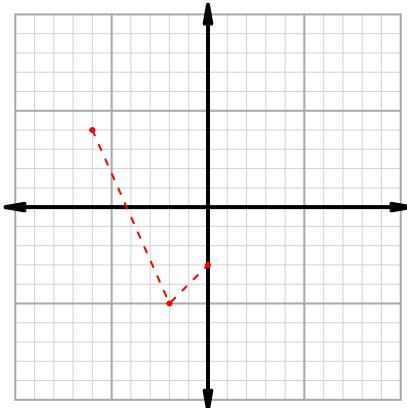
## Intervals, Transformations, and Slope EXAM (version 130)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

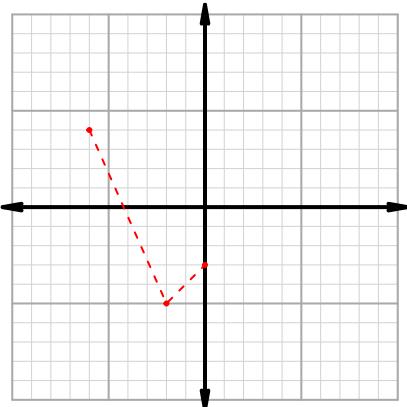
$$y = f(x+2)$$



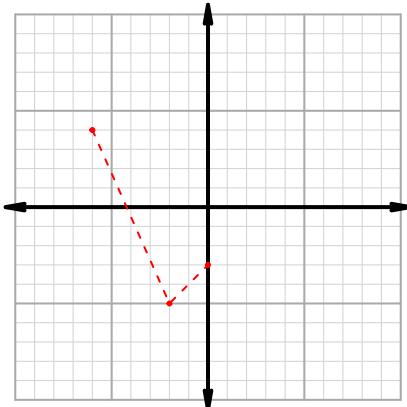
$$y = f(x) - 2$$



$$y = -2 \cdot f(x)$$



$$y = f(-2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 55$  and  $x_2 = 83$ . Express your answer as a reduced fraction.

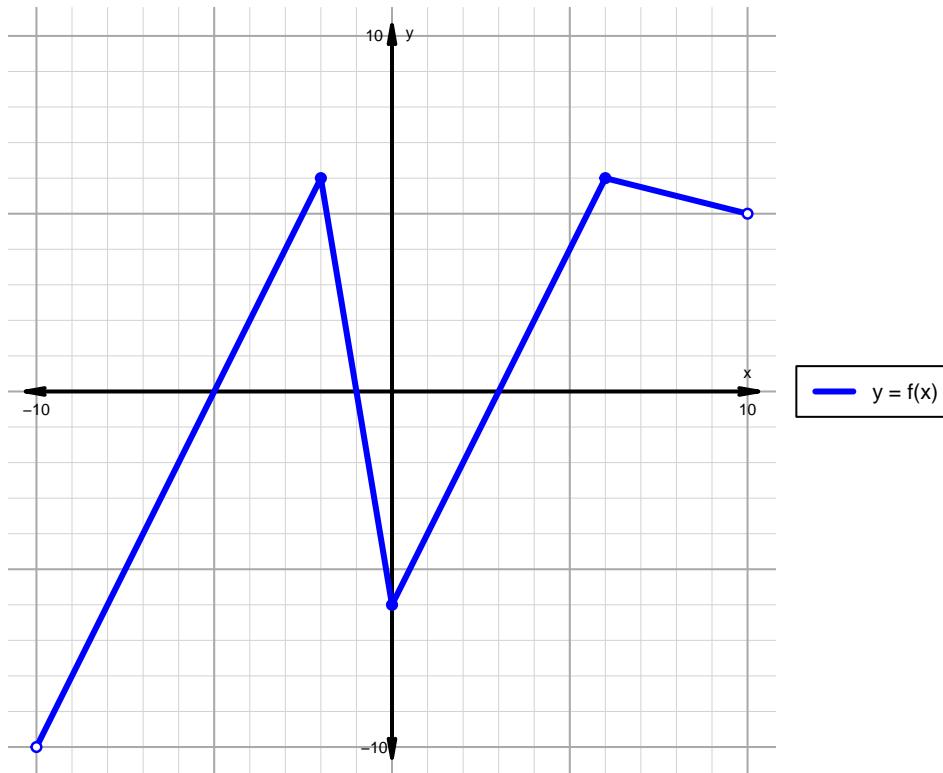
$x$	$g(x)$
28	83
55	28
83	91
91	55

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 131)**

1. The function  $f$  is graphed below.



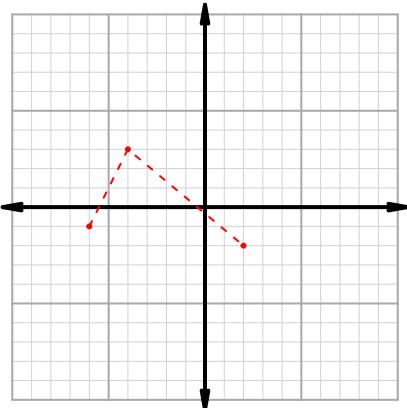
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

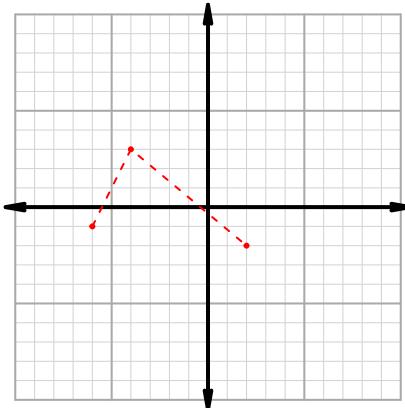
## Intervals, Transformations, and Slope EXAM (version 131)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

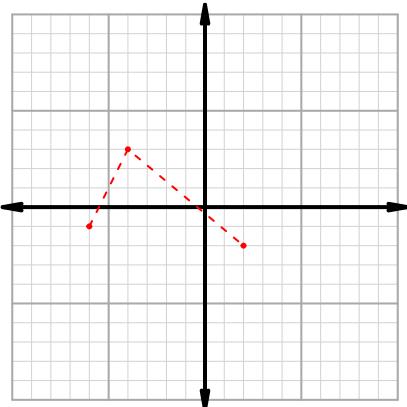
$$y = f(x) + 2$$



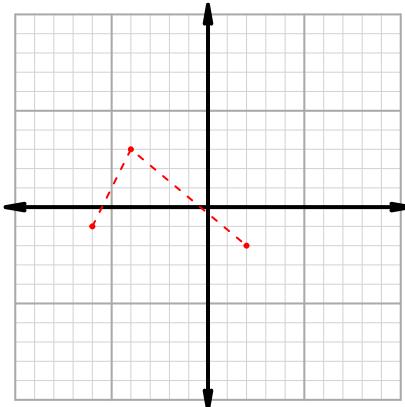
$$y = f(2 \cdot x)$$



$$y = f(x + 2)$$



$$y = 2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 18$  and  $x_2 = 58$ . Express your answer as a reduced fraction.

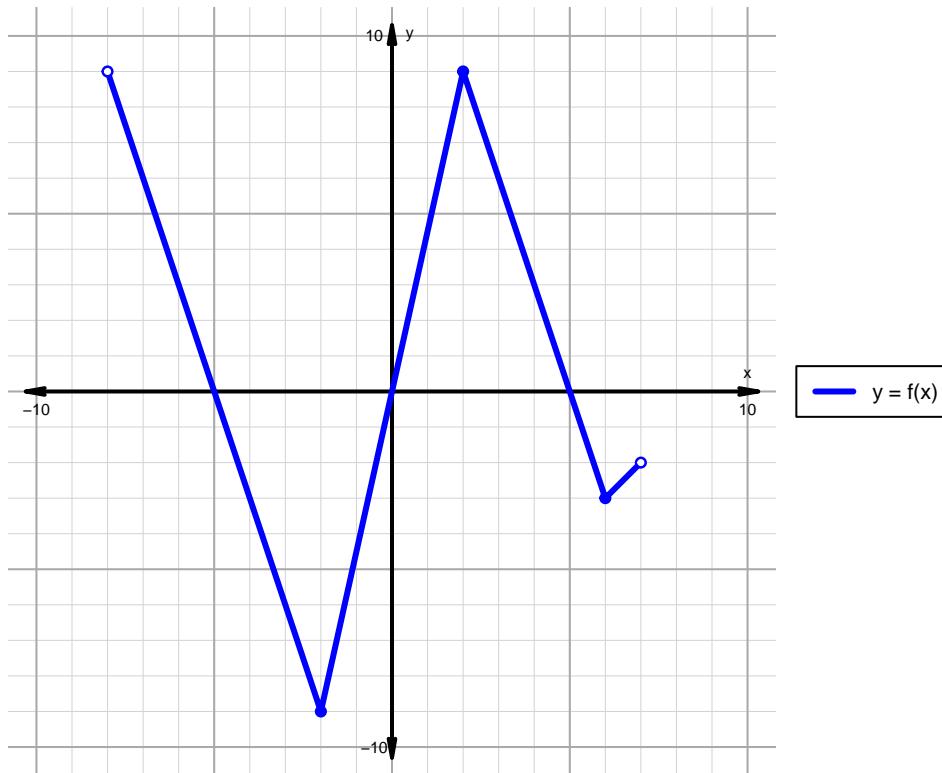
$x$	$g(x)$
18	61
58	86
61	58
86	18

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 132)**

1. The function  $f$  is graphed below.



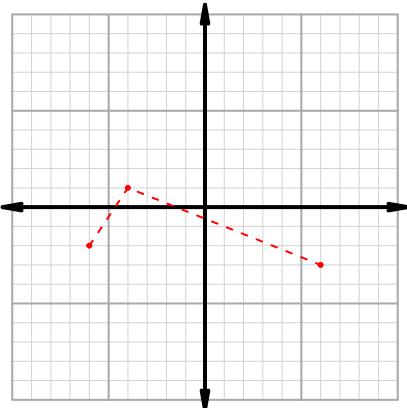
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

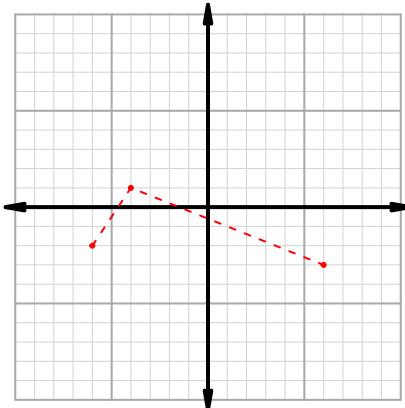
## Intervals, Transformations, and Slope EXAM (version 132)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

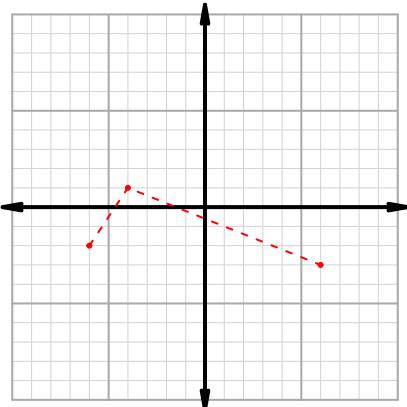
$$y = f(x) - 2$$



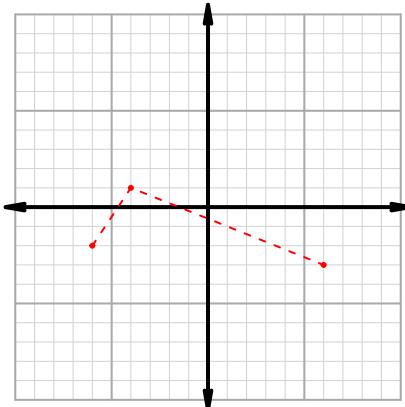
$$y = f(x + 2)$$



$$y = 2 \cdot f(x)$$



$$y = f(-2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 29$  and  $x_2 = 65$ . Express your answer as a reduced fraction.

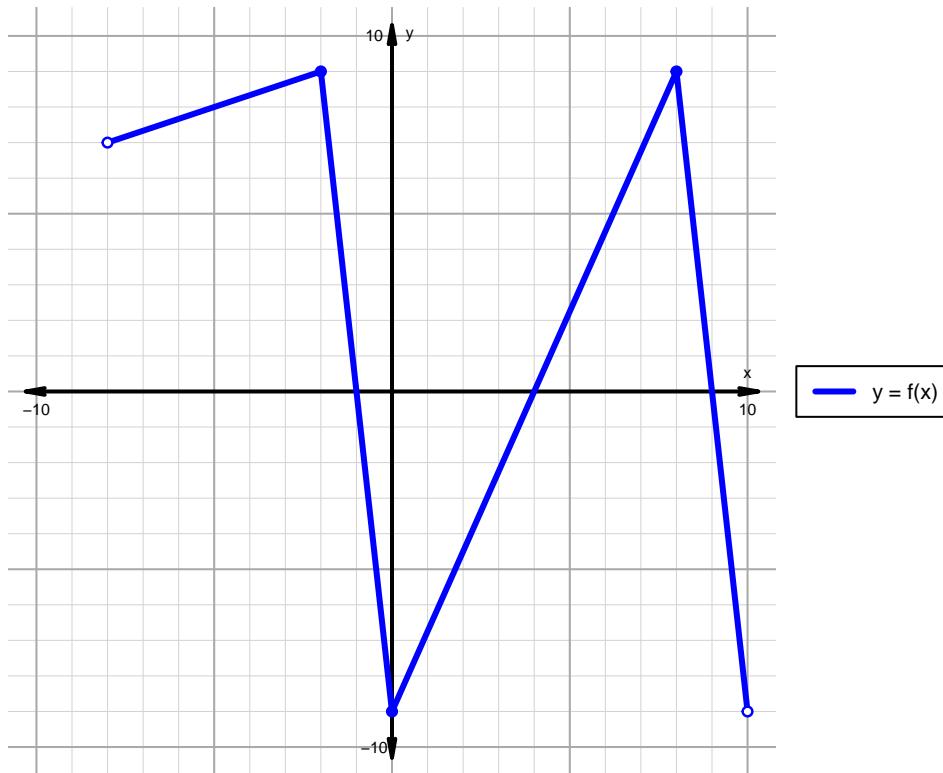
$x$	$g(x)$
7	29
29	88
65	7
88	65

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 133)**

1. The function  $f$  is graphed below.



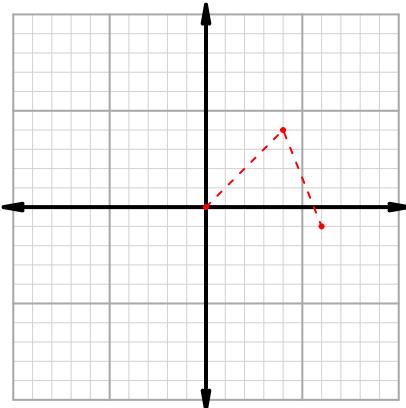
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

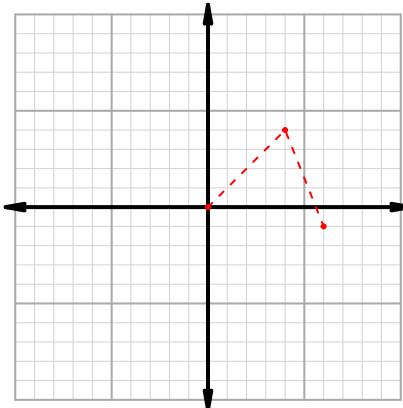
## Intervals, Transformations, and Slope EXAM (version 133)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

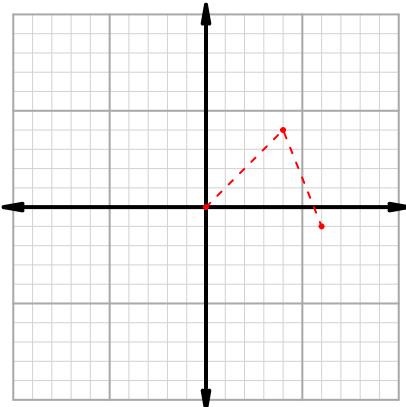
$$y = f(2 \cdot x)$$



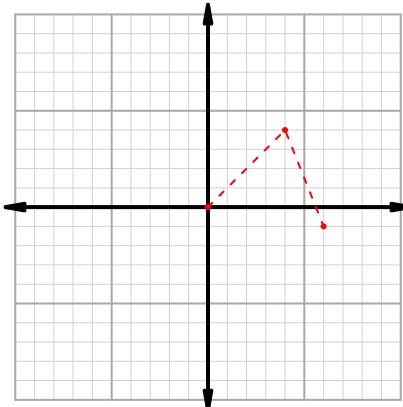
$$y = f(x + 2)$$



$$y = f(x) + 2$$



$$y = 2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 93$  and  $x_2 = 99$ . Express your answer as a reduced fraction.

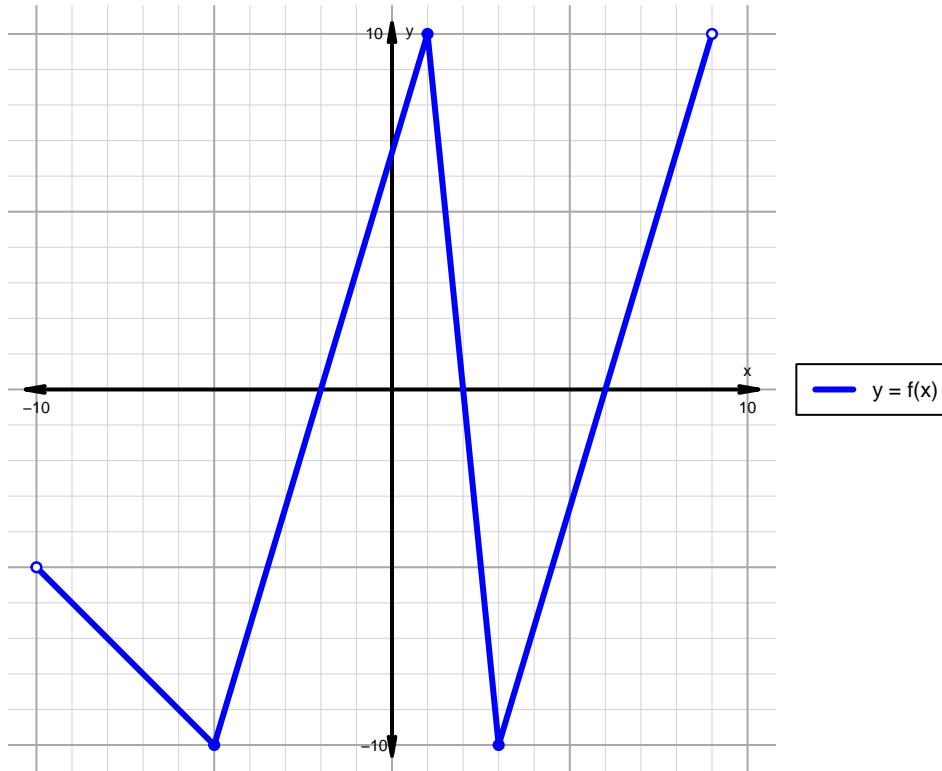
$x$	$g(x)$
9	93
23	99
93	23
99	9

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 134)**

1. The function  $f$  is graphed below.



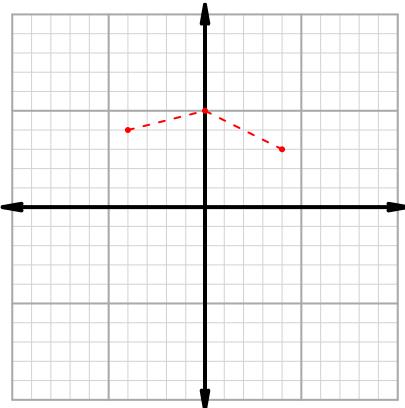
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

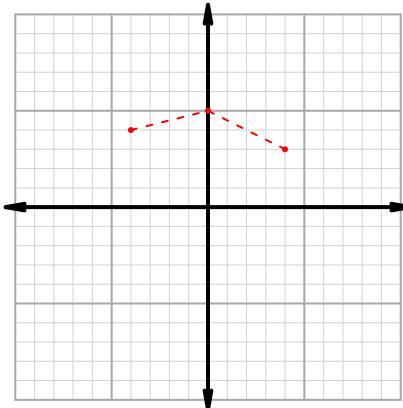
## Intervals, Transformations, and Slope EXAM (version 134)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

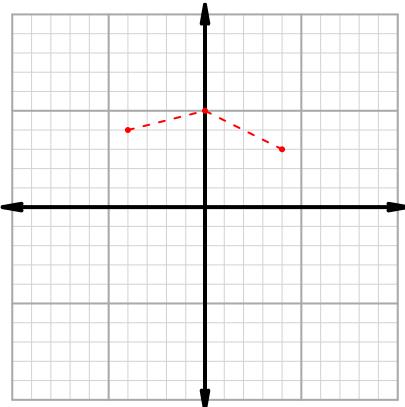
$$y = f(-2 \cdot x)$$



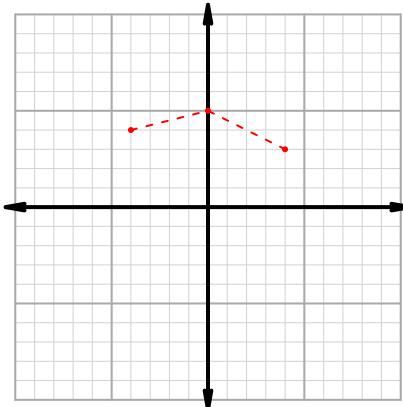
$$y = 2 \cdot f(x)$$



$$y = f(x) + 2$$



$$y = f(x - 2)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 37$  and  $x_2 = 79$ . Express your answer as a reduced fraction.

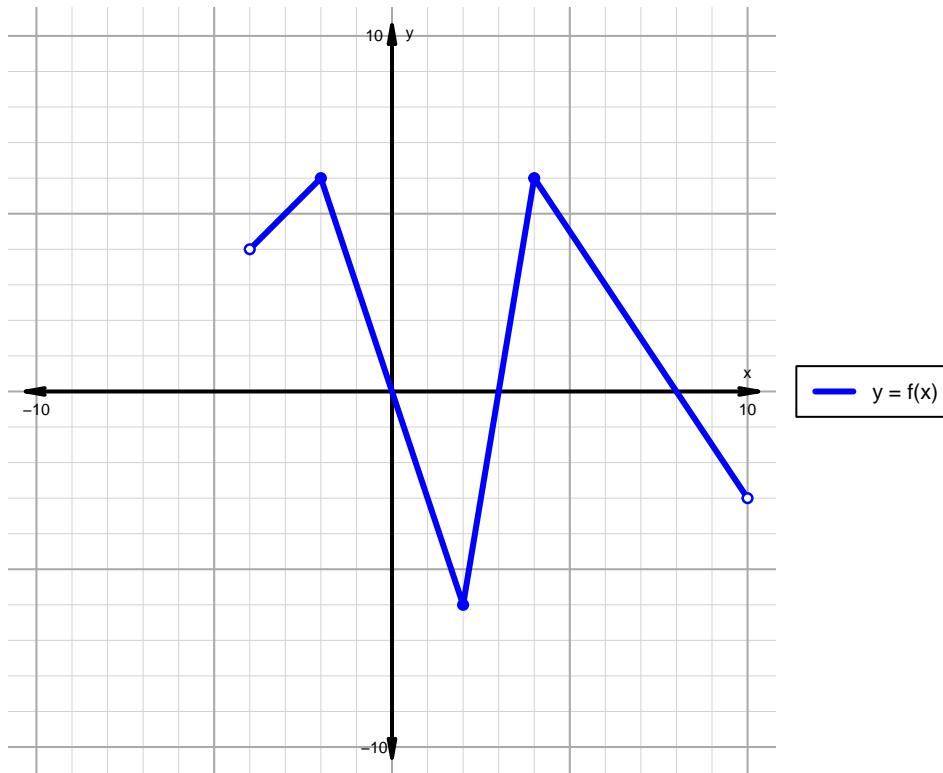
$x$	$g(x)$
37	81
46	37
79	46
81	79

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 135)**

1. The function  $f$  is graphed below.



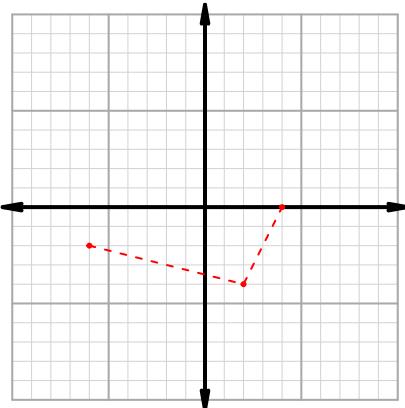
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

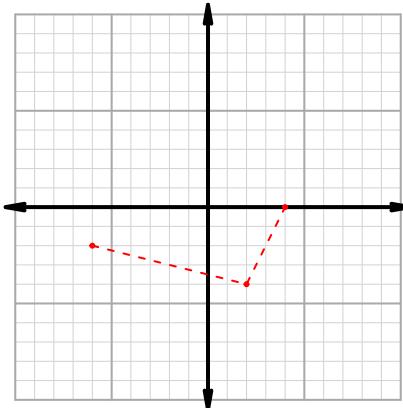
## Intervals, Transformations, and Slope EXAM (version 135)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

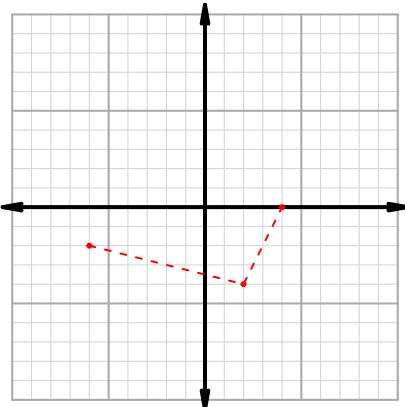
$$y = 2 \cdot f(x)$$



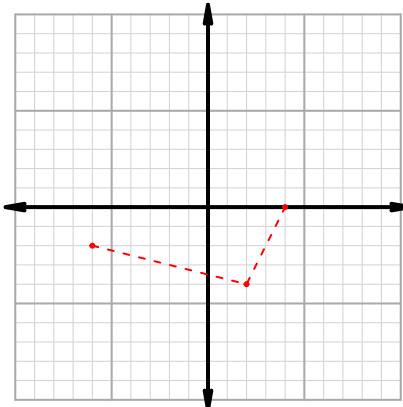
$$y = f(-2 \cdot x)$$



$$y = f(x + 2)$$



$$y = f(x) - 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 54$  and  $x_2 = 74$ . Express your answer as a reduced fraction.

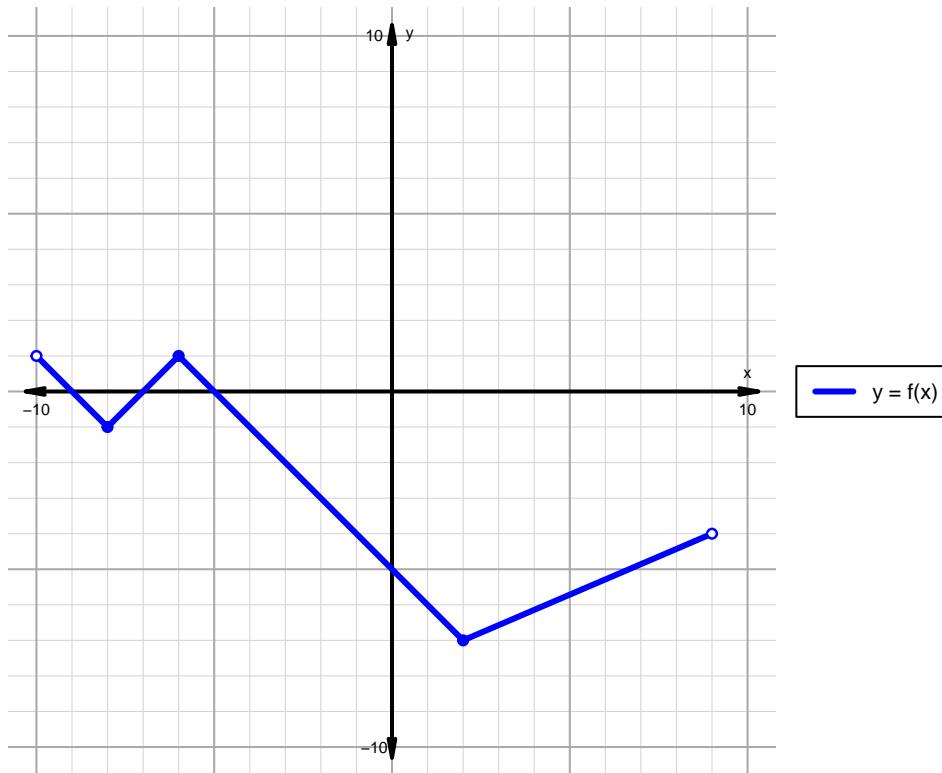
$x$	$g(x)$
54	62
62	74
74	98
98	54

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 136)**

1. The function  $f$  is graphed below.



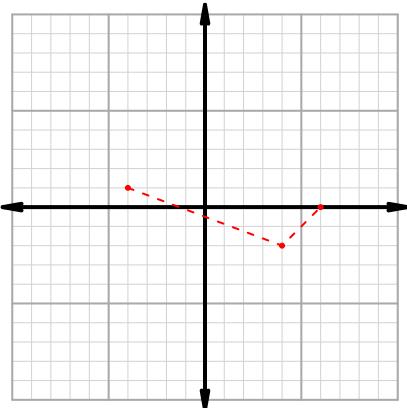
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

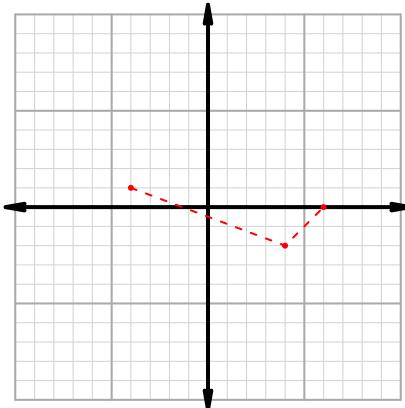
## Intervals, Transformations, and Slope EXAM (version 136)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

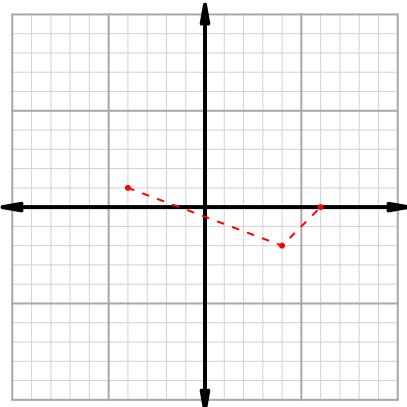
$$y = f(2 \cdot x)$$



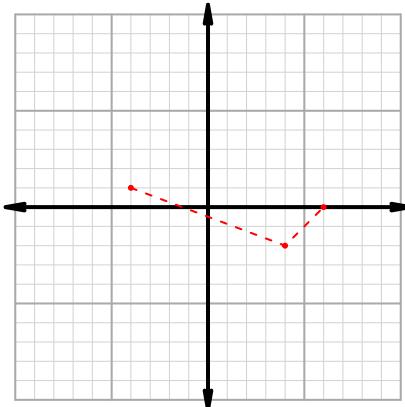
$$y = 2 \cdot f(x)$$



$$y = f(x + 2)$$



$$y = f(x) - 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 78$  and  $x_2 = 87$ . Express your answer as a reduced fraction.

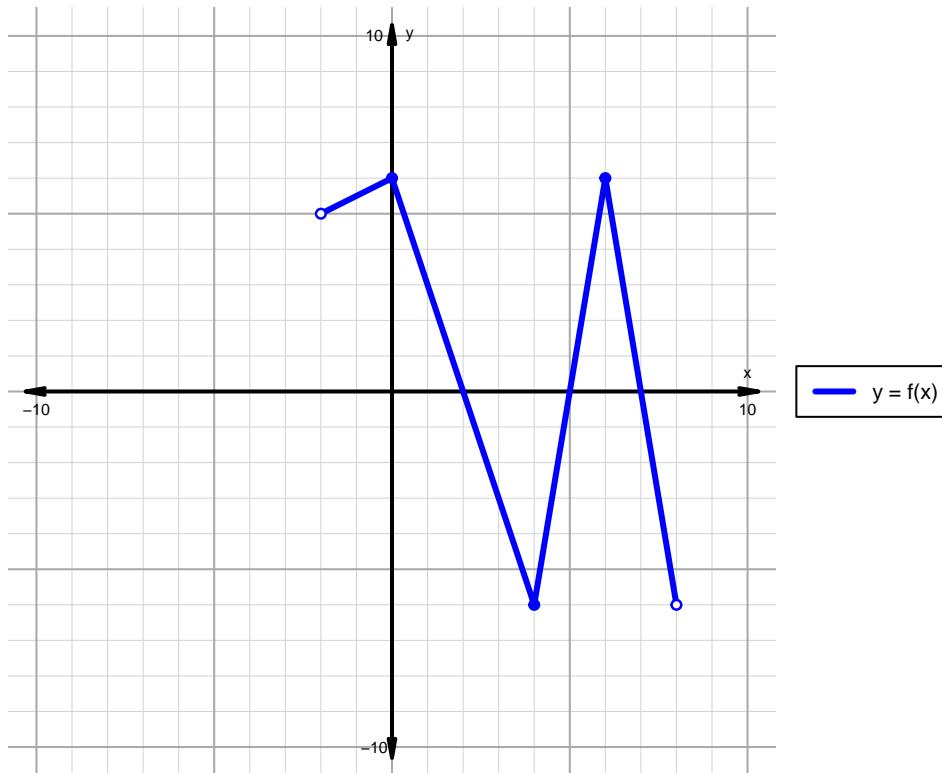
$x$	$g(x)$
33	78
48	87
78	48
87	33

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 137)**

1. The function  $f$  is graphed below.



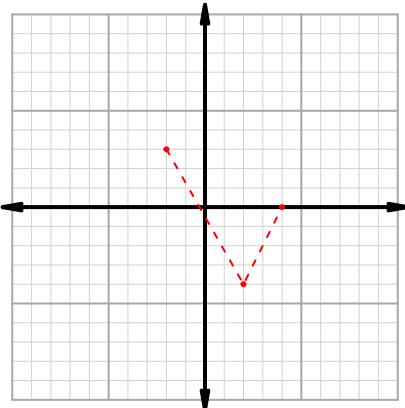
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

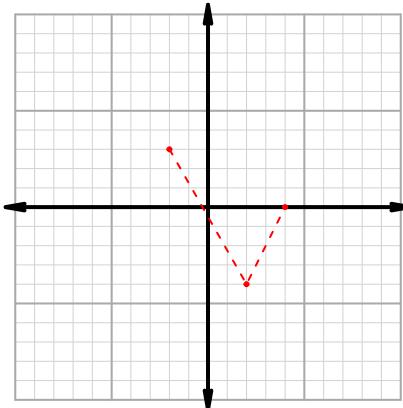
## Intervals, Transformations, and Slope EXAM (version 137)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

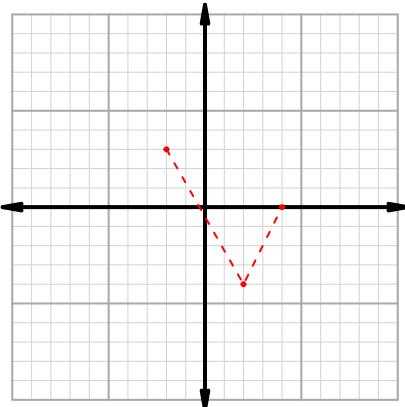
$$y = 2 \cdot f(x)$$



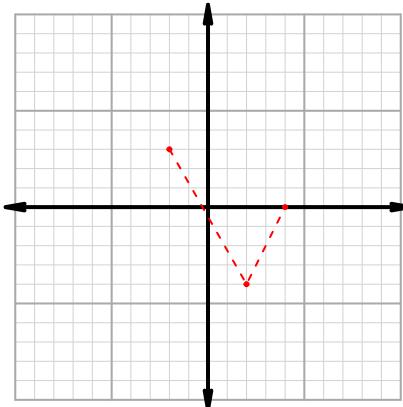
$$y = f(x) + 2$$



$$y = f(x - 2)$$



$$y = f(2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 48$  and  $x_2 = 54$ . Express your answer as a reduced fraction.

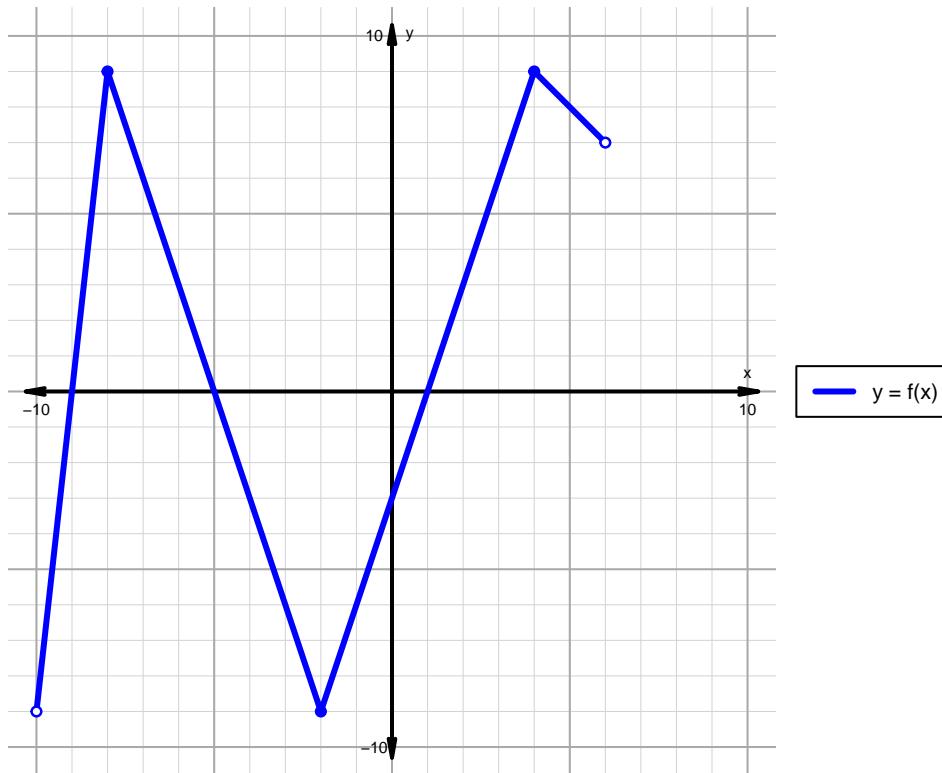
$x$	$g(x)$
32	54
35	48
48	32
54	35

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 138)**

1. The function  $f$  is graphed below.



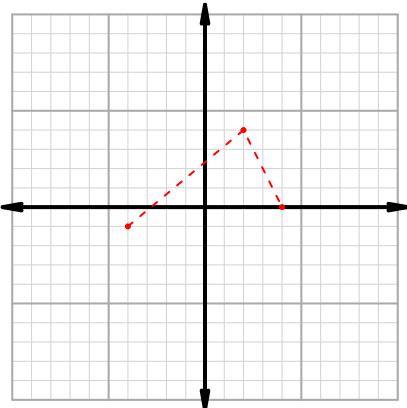
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

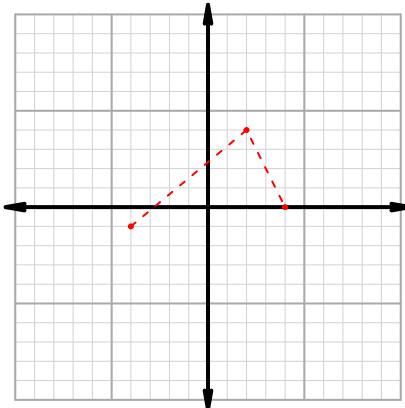
## Intervals, Transformations, and Slope EXAM (version 138)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

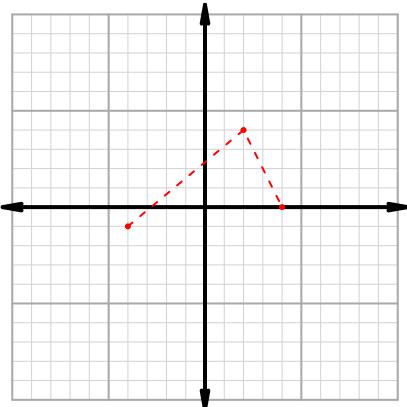
$$y = f(x) + 2$$



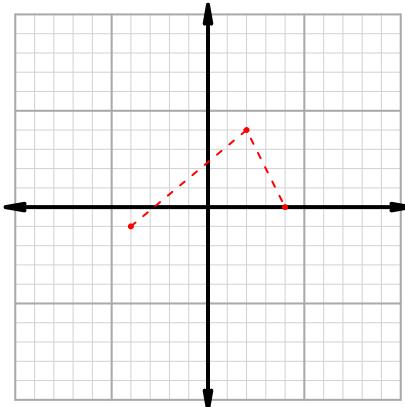
$$y = 2 \cdot f(x)$$



$$y = f(2 \cdot x)$$



$$y = f(x + 2)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 40$  and  $x_2 = 96$ . Express your answer as a reduced fraction.

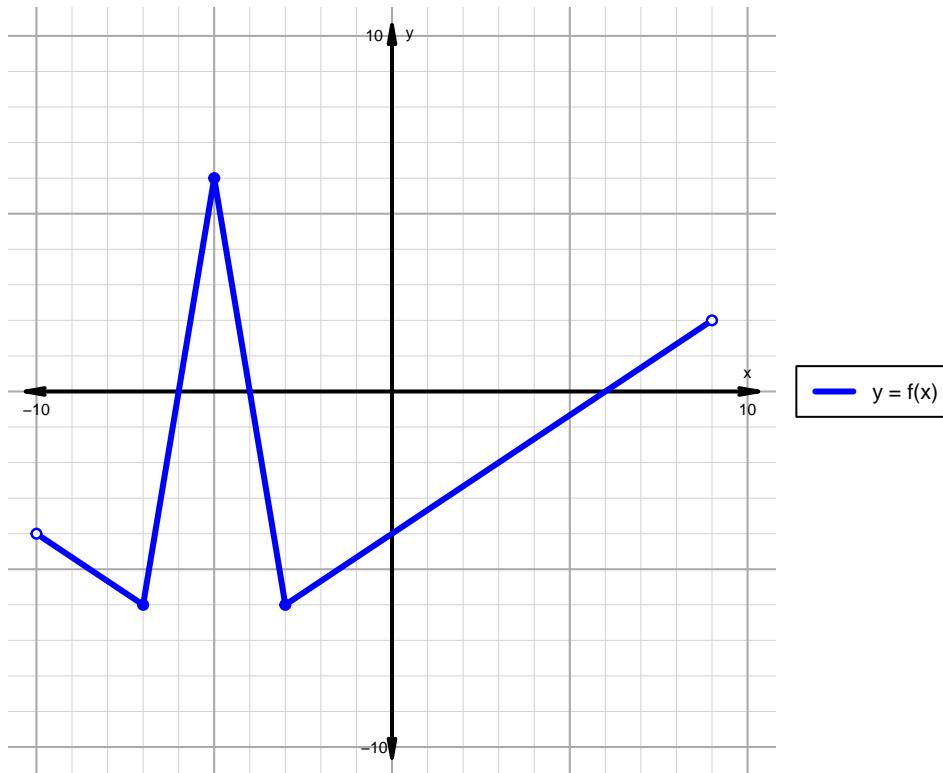
$x$	$g(x)$
29	40
40	77
77	96
96	29

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 139)**

1. The function  $f$  is graphed below.



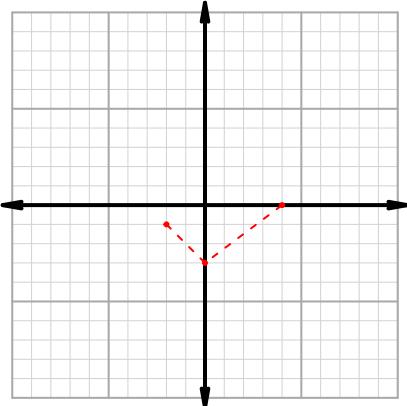
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

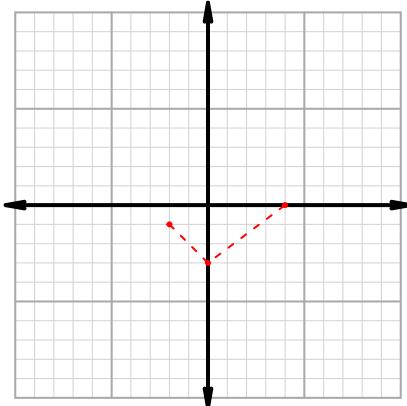
## Intervals, Transformations, and Slope EXAM (version 139)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

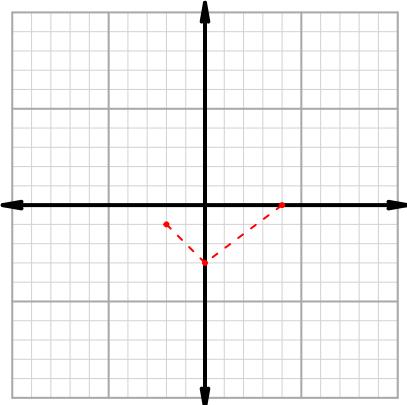
$$y = -2 \cdot f(x)$$



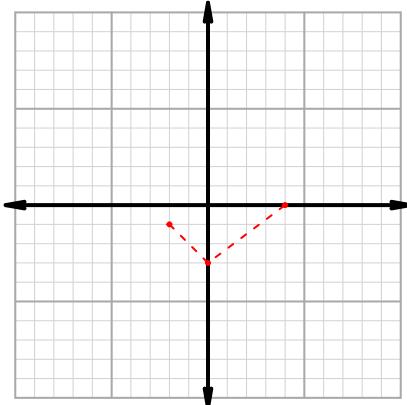
$$y = f(x - 2)$$



$$y = f(x) + 2$$



$$y = f(2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 79$  and  $x_2 = 95$ . Express your answer as a reduced fraction.

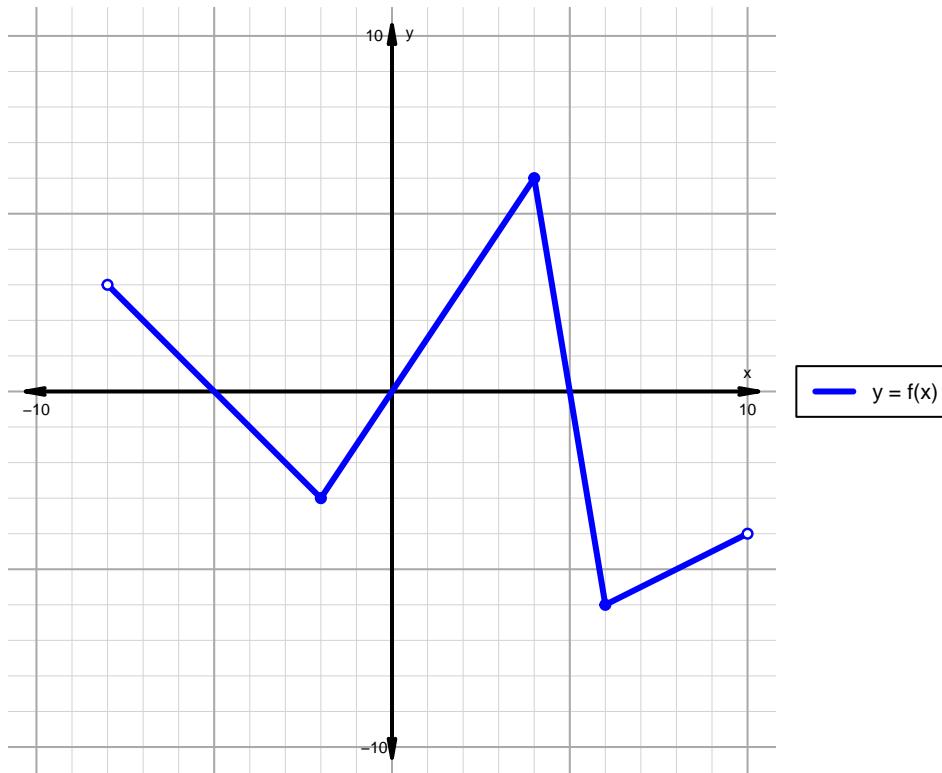
$x$	$g(x)$
16	95
79	16
88	79
95	88

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 140)**

1. The function  $f$  is graphed below.



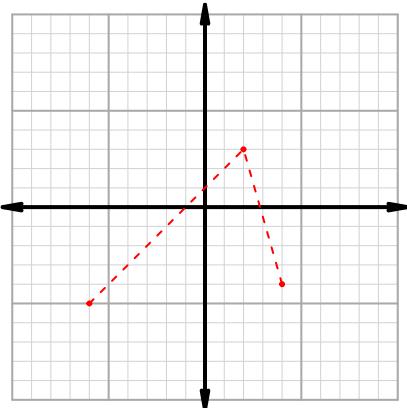
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

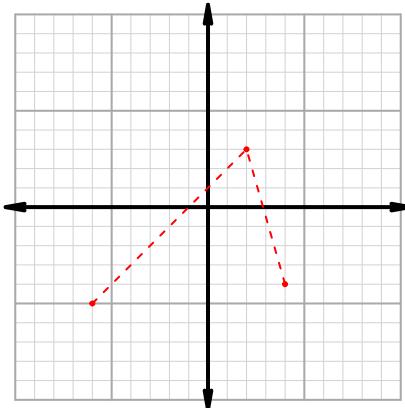
## Intervals, Transformations, and Slope EXAM (version 140)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

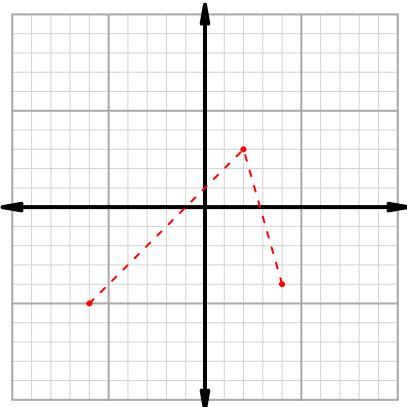
$$y = f(x) + 2$$



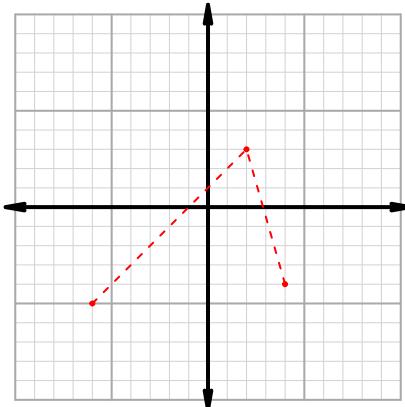
$$y = f(-2 \cdot x)$$



$$y = -2 \cdot f(x)$$



$$y = f(x+2)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 60$  and  $x_2 = 95$ . Express your answer as a reduced fraction.

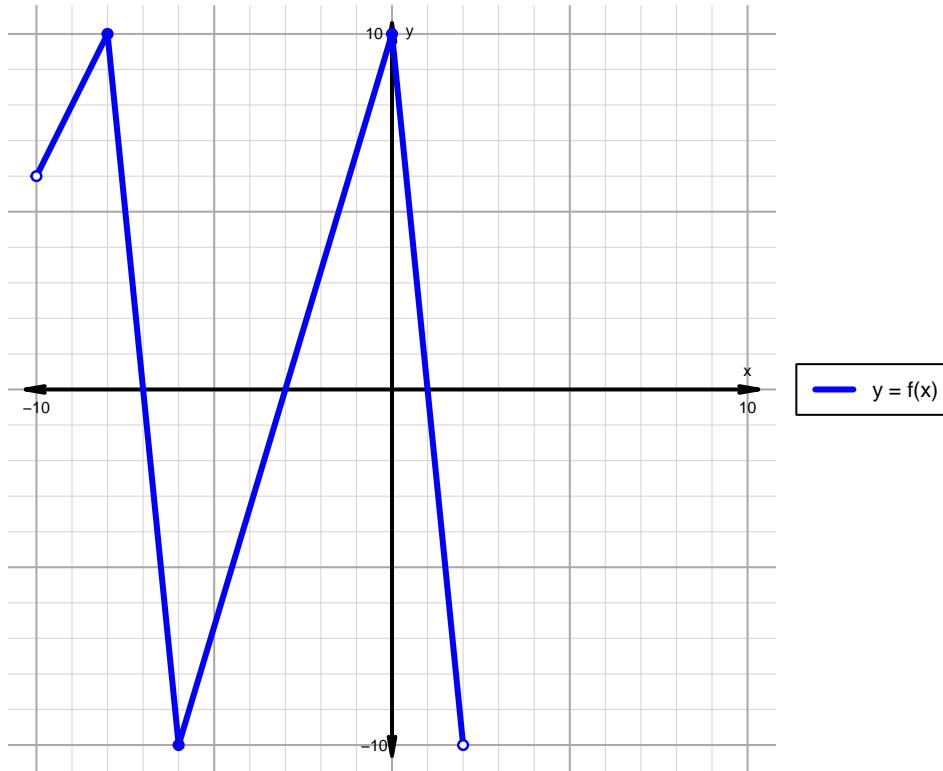
$x$	$g(x)$
6	60
51	95
60	51
95	6

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 141)**

1. The function  $f$  is graphed below.



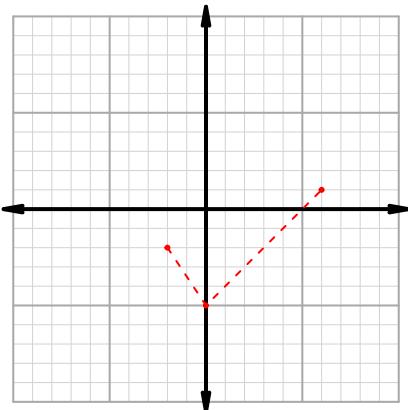
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

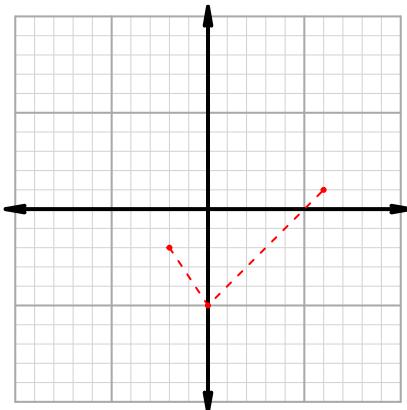
## Intervals, Transformations, and Slope EXAM (version 141)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

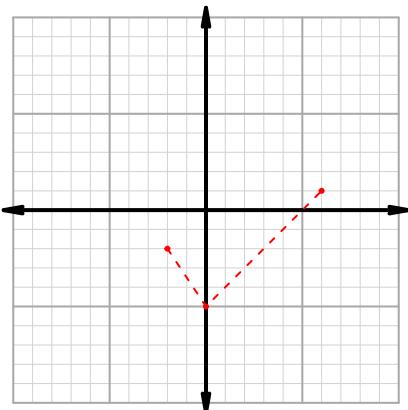
$$y = f(x) - 2$$



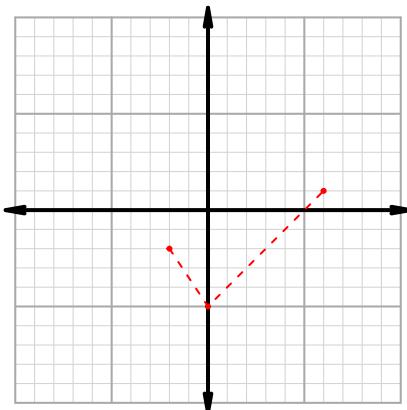
$$y = f(2 \cdot x)$$



$$y = f(x + 2)$$



$$y = 2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 40$  and  $x_2 = 64$ . Express your answer as a reduced fraction.

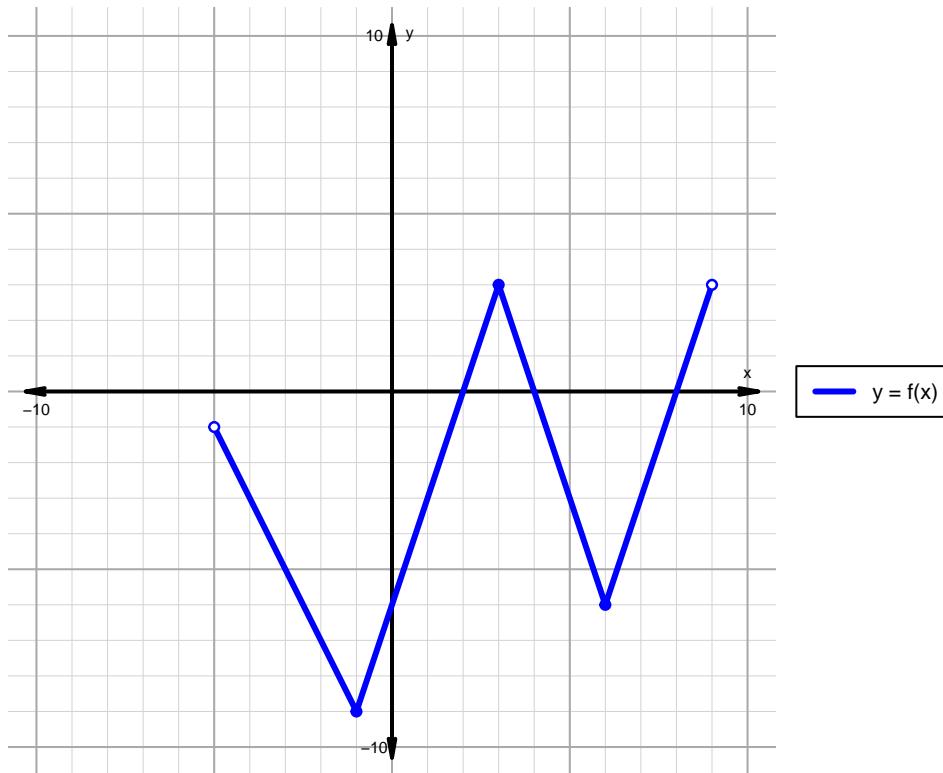
$x$	$g(x)$
40	83
51	40
64	51
83	64

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 142)**

1. The function  $f$  is graphed below.



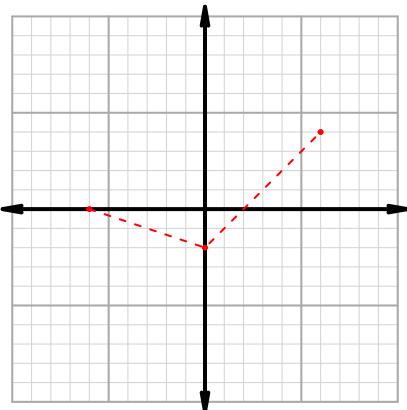
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

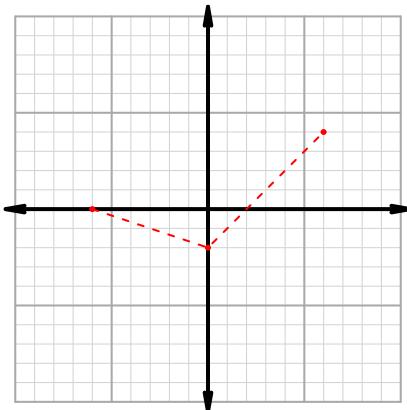
## Intervals, Transformations, and Slope EXAM (version 142)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

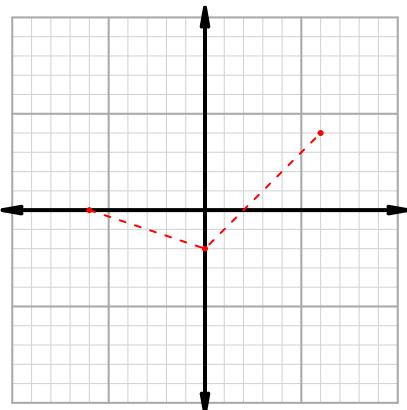
$$y = f(x) + 2$$



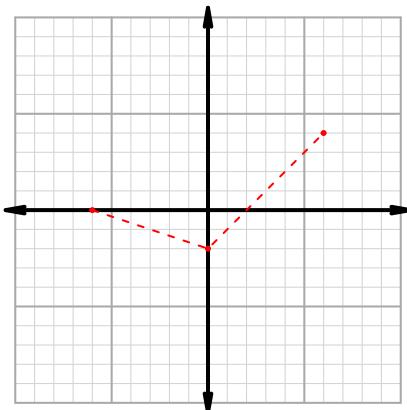
$$y = f(x + 2)$$



$$y = 2 \cdot f(x)$$



$$y = f(-2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 65$  and  $x_2 = 81$ . Express your answer as a reduced fraction.

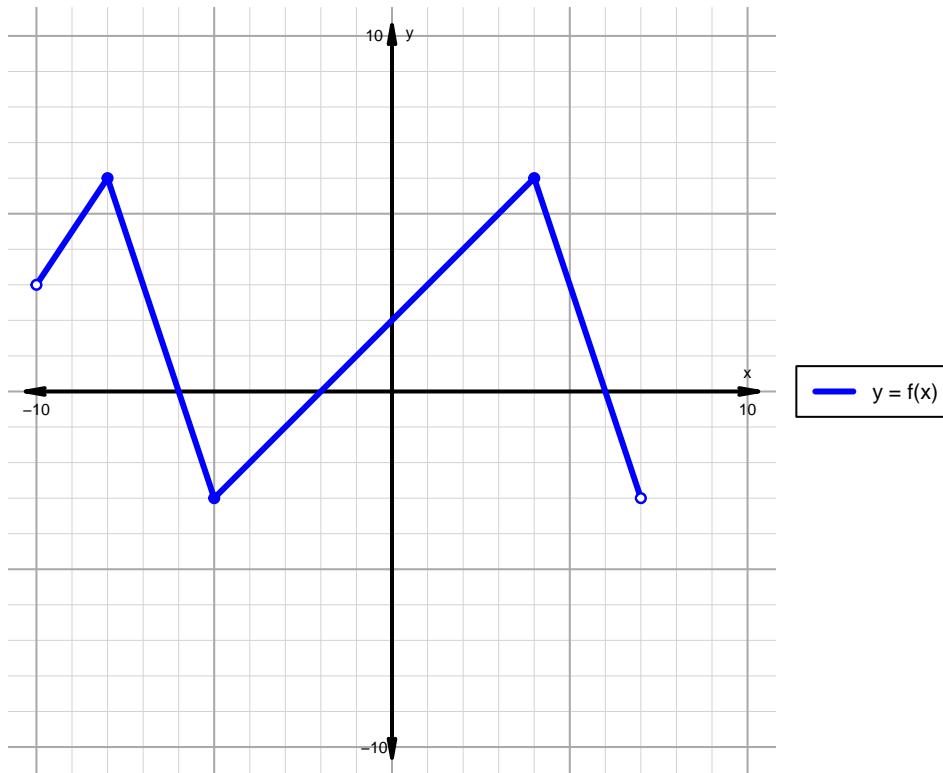
$x$	$g(x)$
13	81
41	65
65	13
81	41

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 143)**

1. The function  $f$  is graphed below.



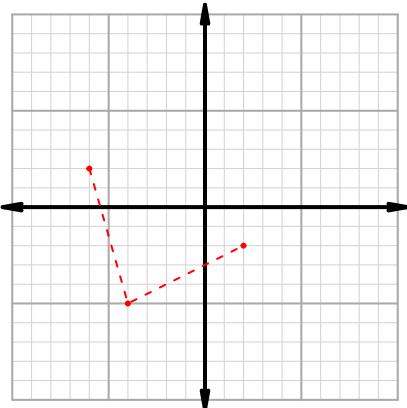
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

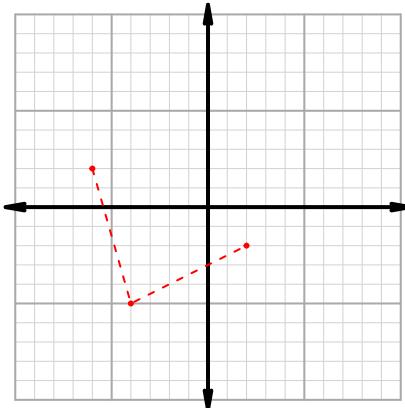
## Intervals, Transformations, and Slope EXAM (version 143)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

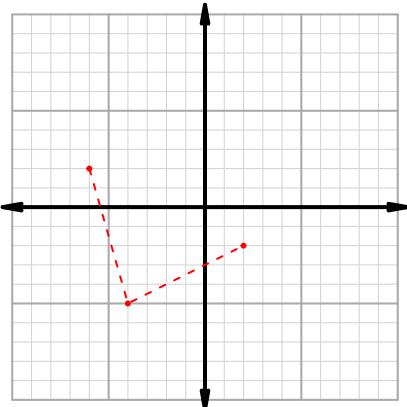
$$y = f(x - 2)$$



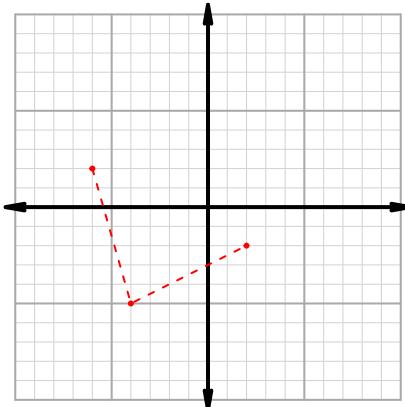
$$y = f(x) - 2$$



$$y = f(-2 \cdot x)$$



$$y = 2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 40$  and  $x_2 = 52$ . Express your answer as a reduced fraction.

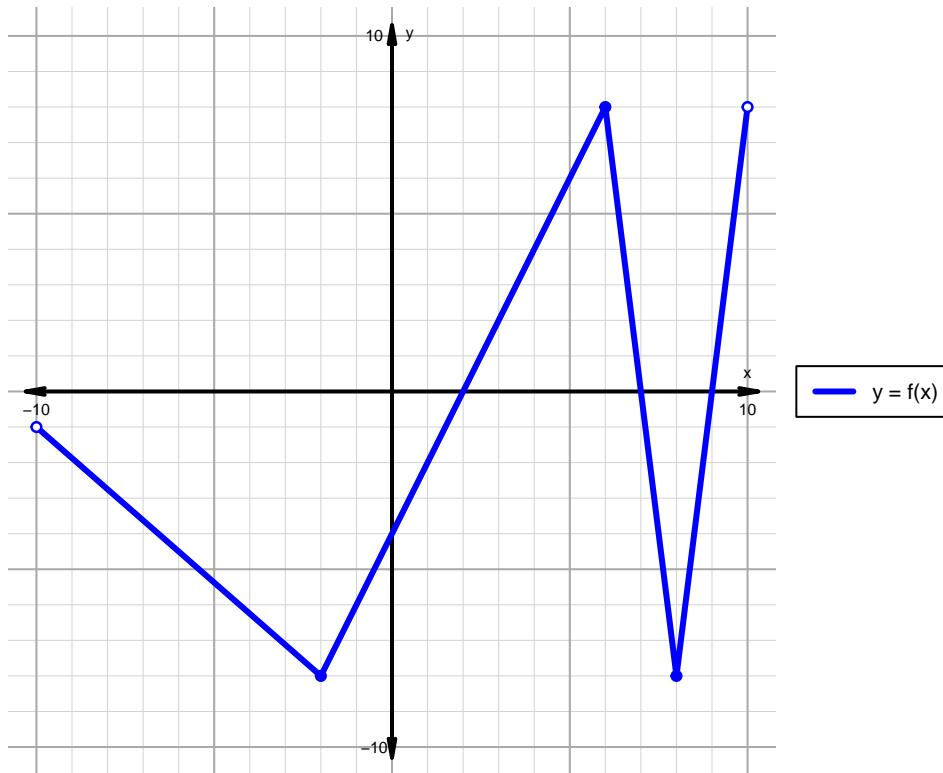
$x$	$g(x)$
23	52
40	23
52	77
77	40

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 144)**

1. The function  $f$  is graphed below.



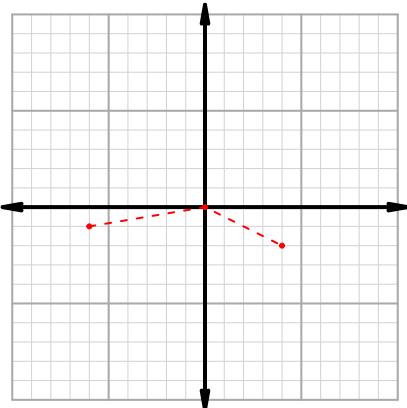
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

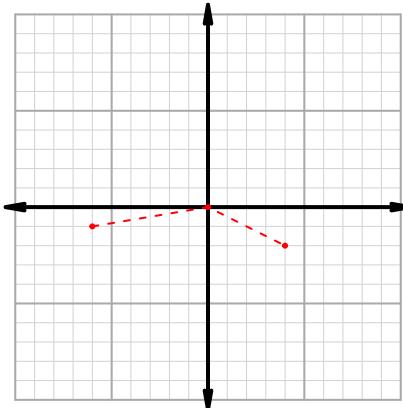
## Intervals, Transformations, and Slope EXAM (version 144)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

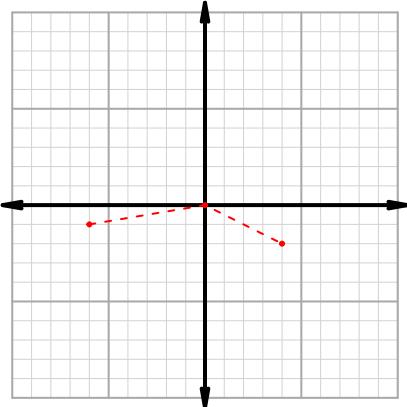
$$y = f(x - 2)$$



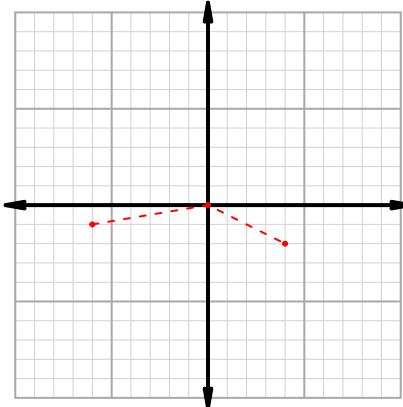
$$y = f(-2 \cdot x)$$



$$y = f(x) + 2$$



$$y = -2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 81$  and  $x_2 = 90$ . Express your answer as a reduced fraction.

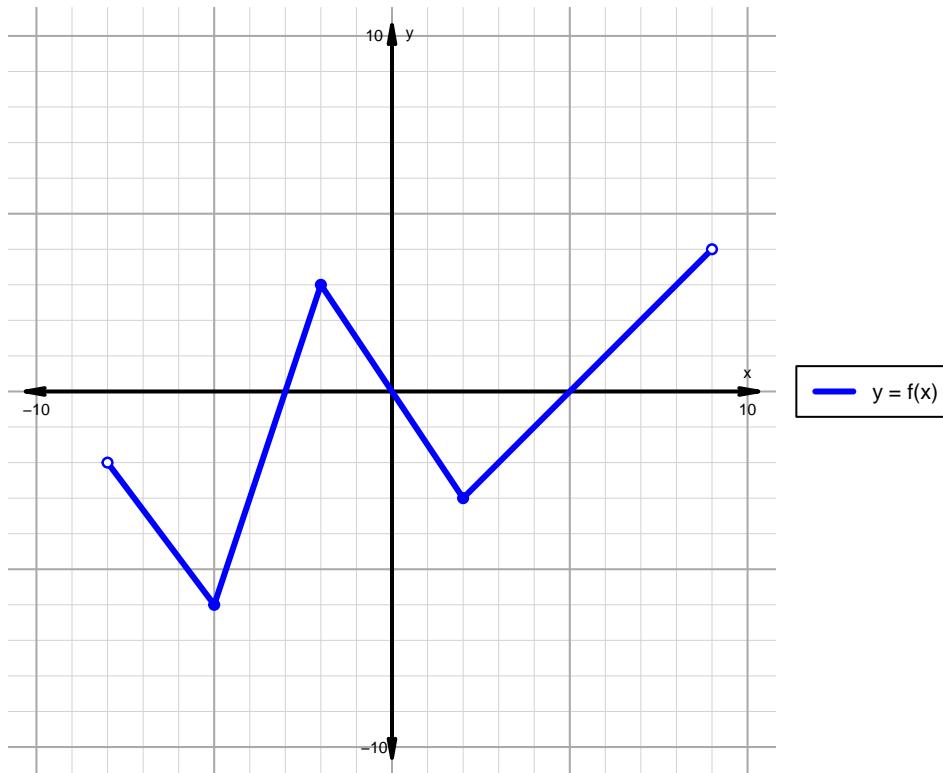
$x$	$g(x)$
12	81
33	90
81	33
90	12

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 145)**

1. The function  $f$  is graphed below.



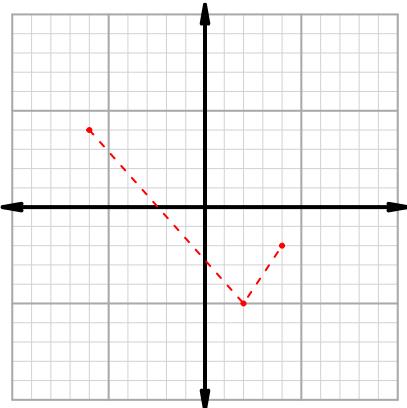
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

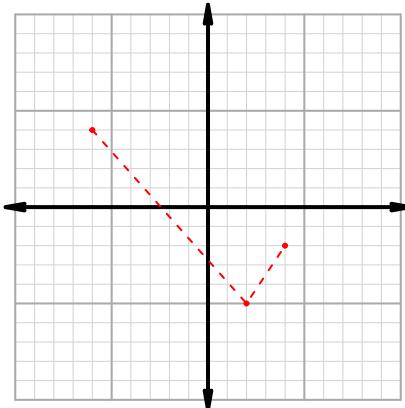
## Intervals, Transformations, and Slope EXAM (version 145)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

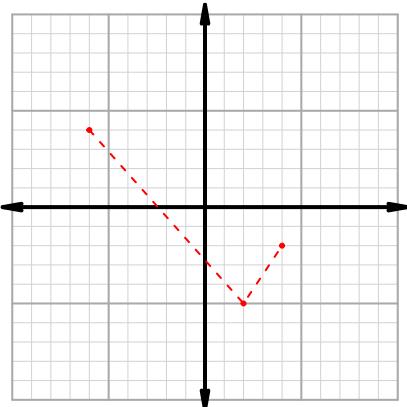
$$y = f(x+2)$$



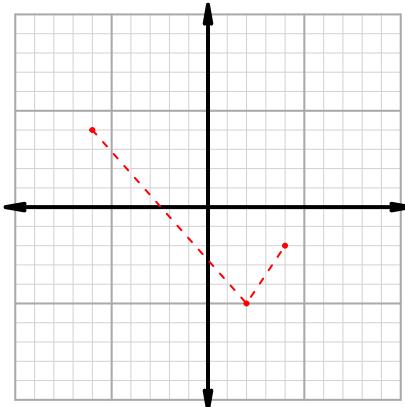
$$y = 2 \cdot f(x)$$



$$y = f(2 \cdot x)$$



$$y = f(x) - 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 25$  and  $x_2 = 67$ . Express your answer as a reduced fraction.

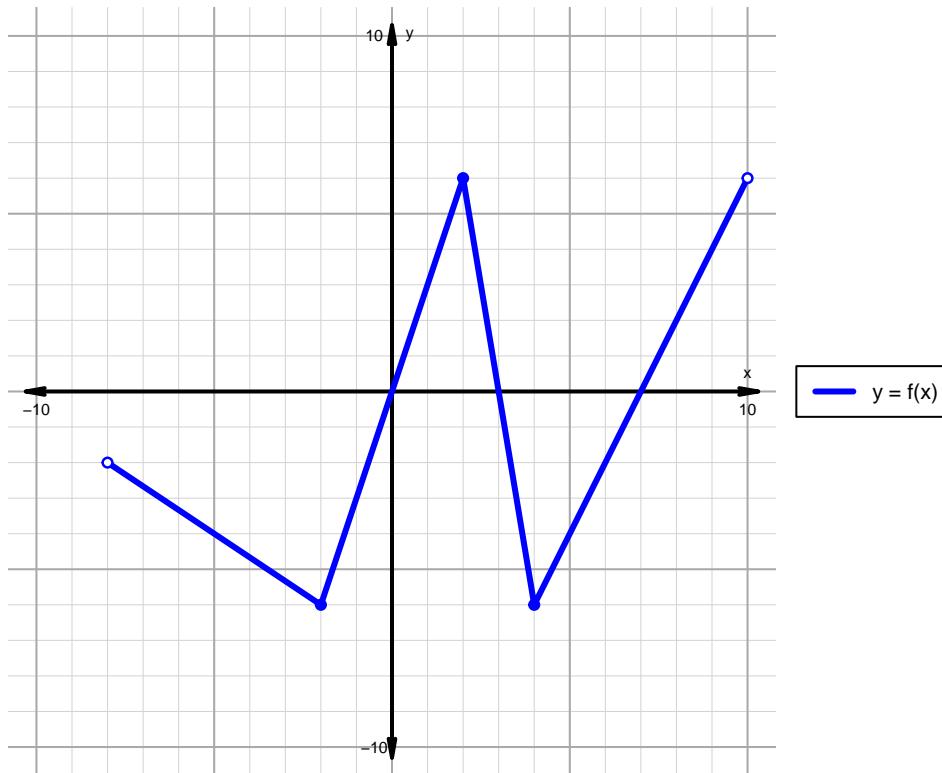
$x$	$g(x)$
25	88
40	25
67	40
88	67

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 146)**

1. The function  $f$  is graphed below.



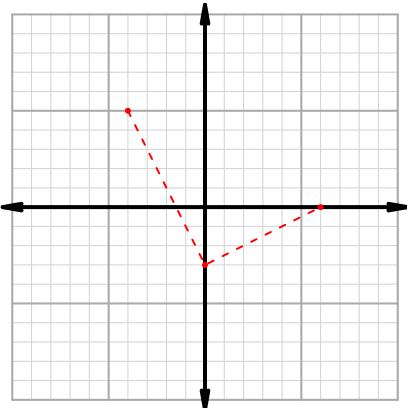
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

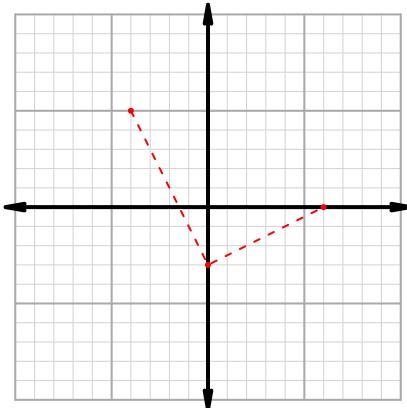
## Intervals, Transformations, and Slope EXAM (version 146)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

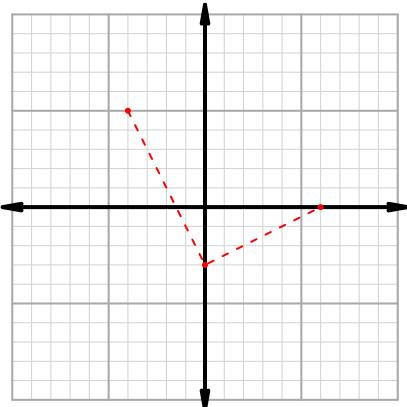
$$y = f(x - 2)$$



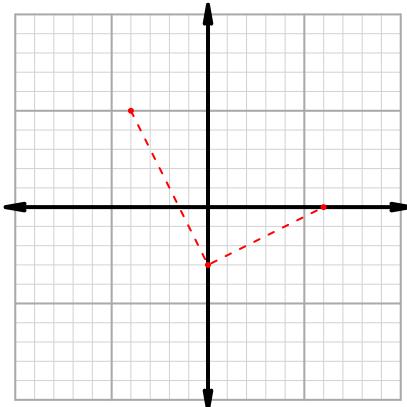
$$y = f(-2 \cdot x)$$



$$y = f(x) + 2$$



$$y = -2 \cdot f(x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 35$  and  $x_2 = 45$ . Express your answer as a reduced fraction.

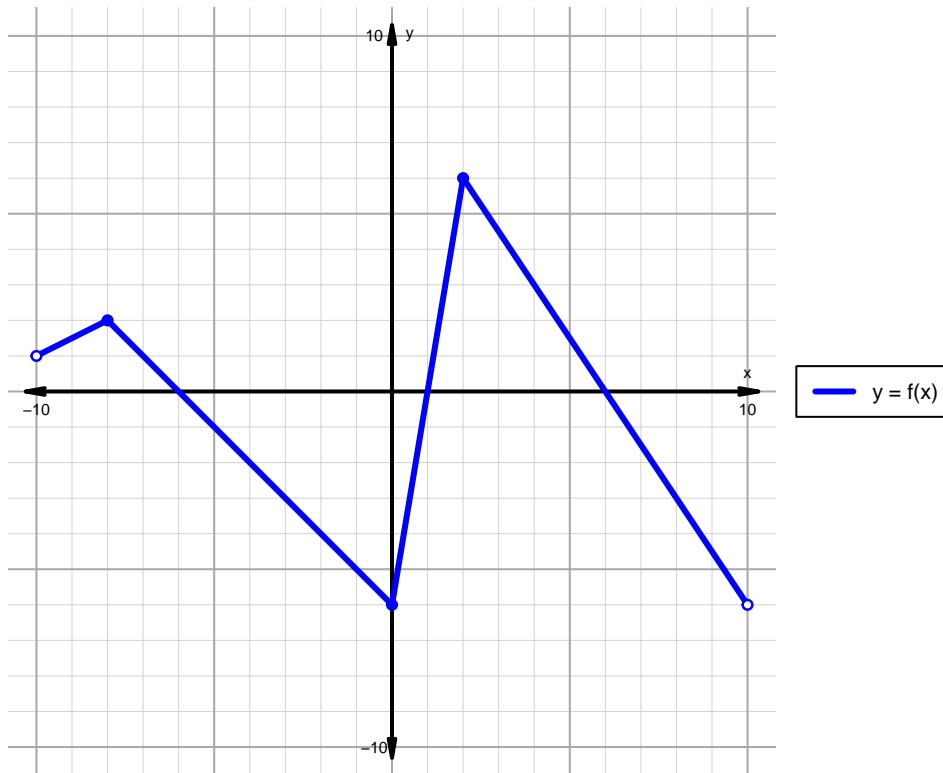
$x$	$g(x)$
35	73
45	55
55	35
73	45

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 147)**

1. The function  $f$  is graphed below.



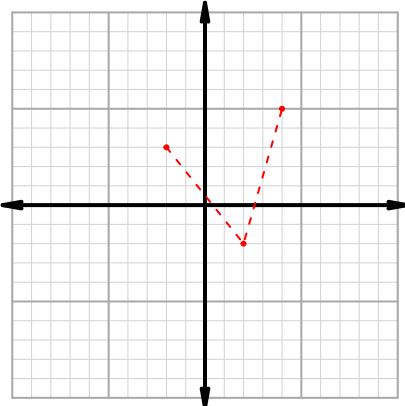
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

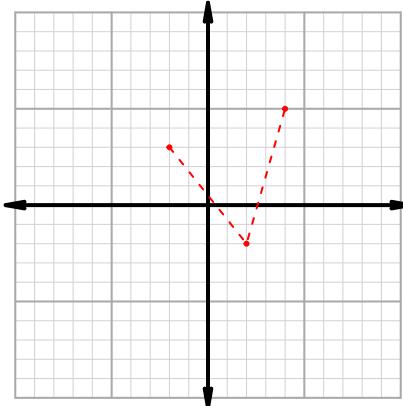
## Intervals, Transformations, and Slope EXAM (version 147)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

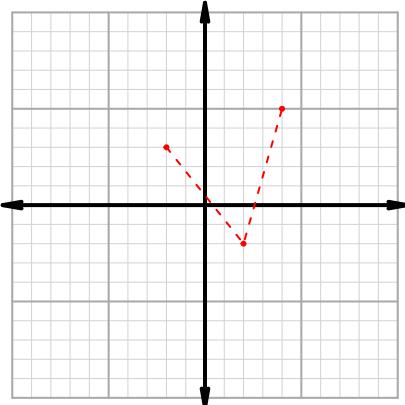
$$y = -2 \cdot f(x)$$



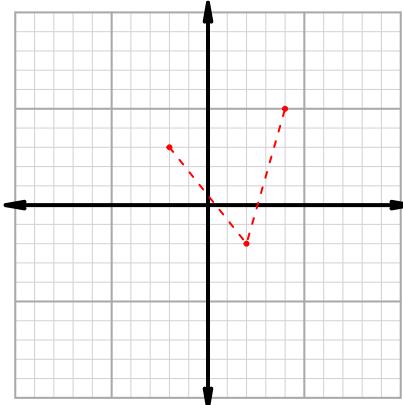
$$y = f(2 \cdot x)$$



$$y = f(x - 2)$$



$$y = f(x) - 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 34$  and  $x_2 = 97$ . Express your answer as a reduced fraction.

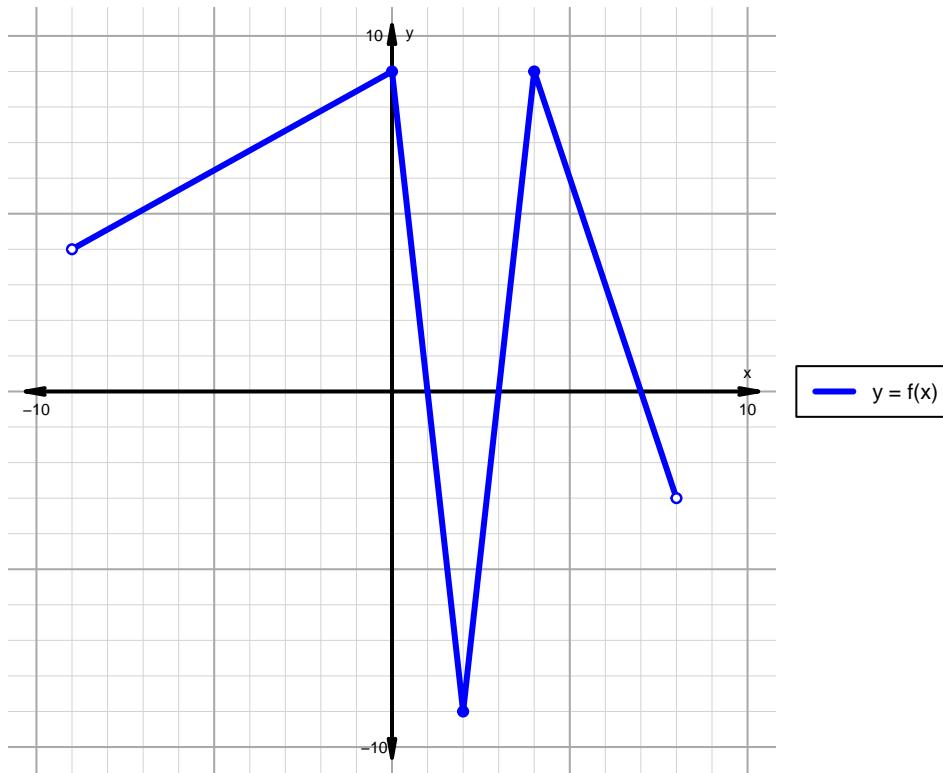
$x$	$g(x)$
5	34
34	59
59	97
97	5

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 148)**

1. The function  $f$  is graphed below.



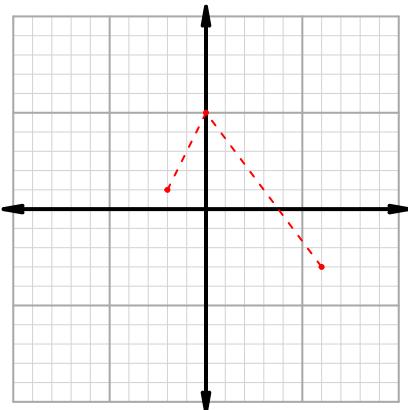
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

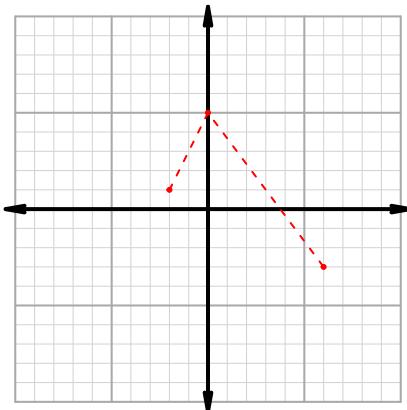
## Intervals, Transformations, and Slope EXAM (version 148)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

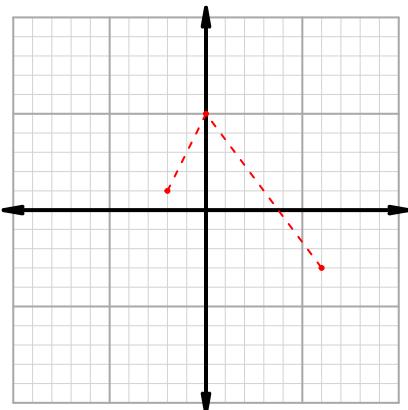
$$y = f(x) + 2$$



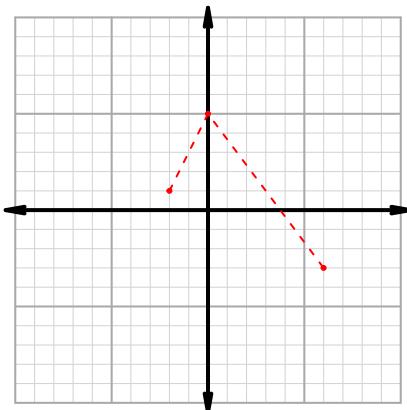
$$y = f(-2 \cdot x)$$



$$y = 2 \cdot f(x)$$



$$y = f(x+2)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 11$  and  $x_2 = 43$ . Express your answer as a reduced fraction.

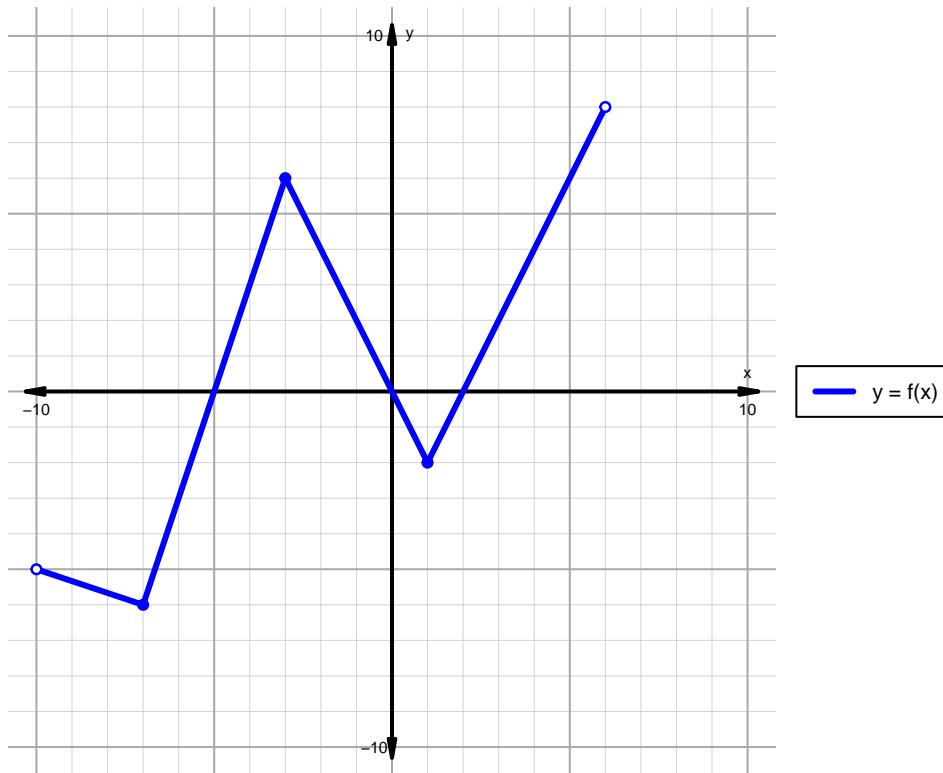
$x$	$g(x)$
11	59
43	63
59	43
63	11

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 149)**

1. The function  $f$  is graphed below.



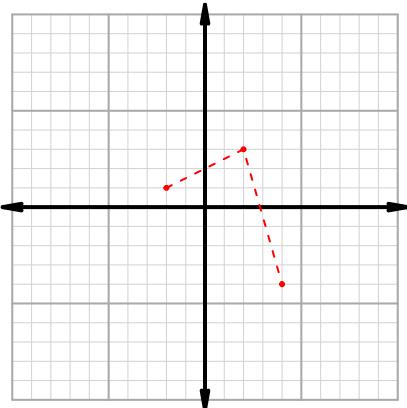
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

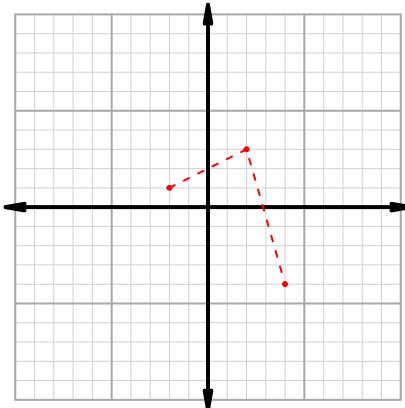
## Intervals, Transformations, and Slope EXAM (version 149)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

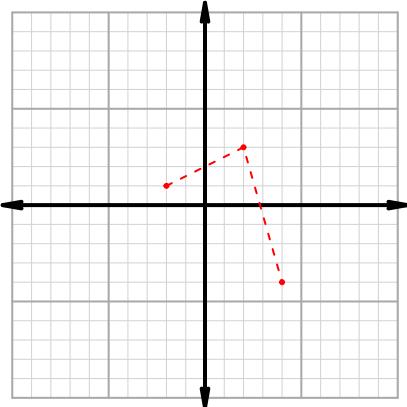
$$y = f(x - 2)$$



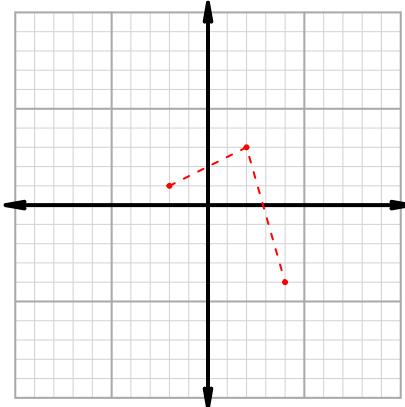
$$y = -2 \cdot f(x)$$



$$y = f(x) + 2$$



$$y = f(2 \cdot x)$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 11$  and  $x_2 = 92$ . Express your answer as a reduced fraction.

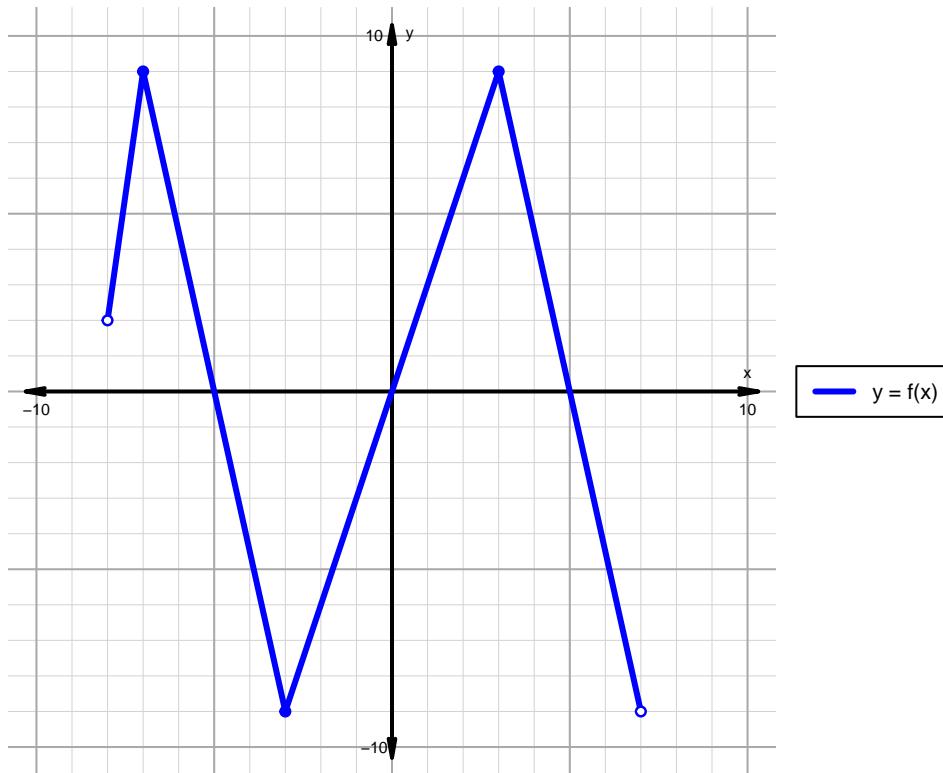
$x$	$g(x)$
11	49
13	11
49	92
92	13

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Intervals, Transformations, and Slope EXAM (version 150)**

1. The function  $f$  is graphed below.



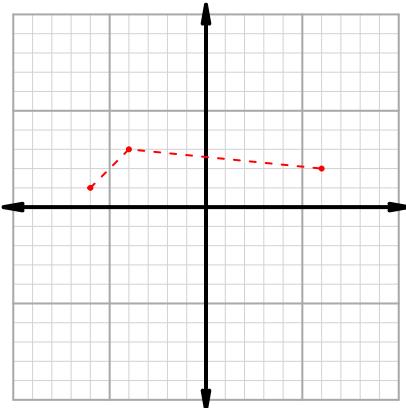
Indicate the following intervals using interval notation. Remember, you can use  $\cup$  between two intervals to indicate the union. Except for range, all intervals will indicate  $x$  values; this is standard.

Feature	Where
Positive	
Negative	
Increasing	
Decreasing	
Domain	
Range	

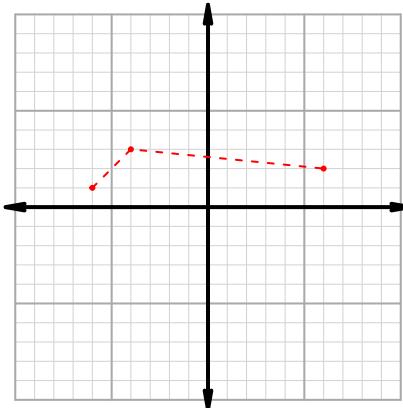
## Intervals, Transformations, and Slope EXAM (version 150)

2. In the four graphs below,  $y = f(x)$  is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.

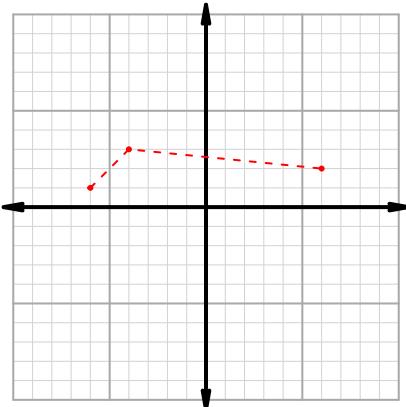
$$y = f(x+2)$$



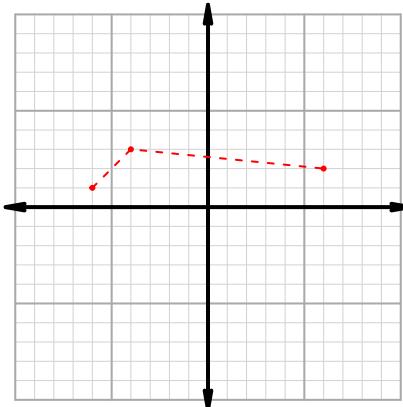
$$y = f(-2 \cdot x)$$



$$y = 2 \cdot f(x)$$



$$y = f(x) + 2$$



3. Let function  $g$  be defined by the table below. Use the formula  $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$  to find the average rate of change between  $x_1 = 60$  and  $x_2 = 81$ . Express your answer as a reduced fraction.

$x$	$g(x)$
15	60
43	81
60	43
81	15